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EUROPEAN COMMISSION DG CLIMATE ACTION

# MAINSTREAMING OF CLIMATE ACTION INTO ESI FUNDS

FINAL REPORT





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## LIST OF ABBREVIATIONS

A/M	Adaptation / Mitigation
AIR	Annual Implementation Report
CAP	Common Agricultural Policy
CB	Cross-Border
CCI	Common Code for Identification
CF	Cohesion Fund
CFP	Common Fisheries Policy
CHP	Combined Heat and Power
CLLD	Community-Led Local Development
CP	Cooperation Programme
CPR	Common Provisions Regulation
DCF	Data Collection Framework
DG CLIMA	Directorate-General for Climate Action
EAFRD	European Agricultural Fund for Rural Development
EC	European Commission
EE	Energy efficiency
EMFF	European Maritime and Fisheries Fund
ERDF	European Regional Development Fund
ESF	European Social Fund
ESI Funds	European Structural and Investment Funds
ESIF	
ETC	European Territorial Cooperation
EU	European Union
FA	Focus Area
FLAG	Fisheries Local Action Groups
GHG	Greenhouse Gas
GNI	Gross National Income
GPP	Green Public Procurement
IF	Intervention Field

IP	Investment Priority
IMP	Integrated Maritime Policy
IR	Interregional
ISC	Inter-Service Consultation
MA	Managing Authority
MS	Member State
MFF	Multiannual Financial Framework
OP	Operational Programme
R&D	Research and Development
RE	Renewable Energy
RES	Renewable Energy Sources
PA	Partnership Agreement
RDP	Rural Development Programme
SME	Small and medium-sized enterprises
SO	Specific Objective
SUM	Sustainable Urban Mobility
SWOT	Strengths, weaknesses, opportunities, and threats
TA	Technical Assistance
TN	Transnational
TO	Thematic Objective
UP	Union Priority
YEI	Youth Employment Initiative



# 1 Executive summary

## Background

The Europe 2020 Strategy for smart, sustainable and inclusive growth aims for a shift to a low-carbon, resource-efficient and climate-resilient economy. In its February 2013 Conclusions, the European Council states that climate action objectives will represent at least 20 % of EU spending in the 2014-2020 period. In its resolution of 23rd October 2012, the European Parliament supports this aspiration. The European Structural and Investment Funds constitute 42 % of the EU 2014-2020 budget (the Multiannual Financial Framework). Thus, the European Structural and Investment Funds are a key contributor to achieving the political target of 20 % of EU spending being for climate action objectives.

## The regulatory framework for climate action in ESIF

The Common Provisions Regulation applies to all the European Structural and Investment Funds. It considers climate action explicitly in its Article 8 on sustainable development. The Article sets out that The Member States and the Commission shall ensure that horizontal objectives, including climate change mitigation and adaptation are promoted in the preparation and implementation of Partnership Agreements and programmes. The political target of 20 % is referred to in preamble (14) of the Common Provisions Regulation: ‘...the Member States should provide information on the support for climate change objectives, in line with the ambition to devote at least 20 % of the budget of the Union to those objectives, using a methodology based on the categories of intervention, focus areas or measures....’. The methodology is also mentioned in Article 8.

## Mainstreaming of climate action into ESIF

Mainstreaming of climate action ensures that climate action is embedded widely in the programming of the European Structural and Investment Funds: This is achieved directly in terms of supporting investments that promote for example energy efficiency and resilience to climate change. Indirectly, it is achieved through considering, for example, the climate-relevant aspects of research, skills upgrading, and nature protection. This report analyses the achievements of the programmes and Partnership Agreements in regard to the mainstreaming of climate action. It rests on a thorough analysis of the 28 Partnership Agreements and the 530 programmes that have been prepared by Member States, focusing on the European Regional Development Fund including its European Territorial Cooperation Goal, the European Social Fund, the European Agricultural Fund for Rural Development, and the European Maritime and Fisheries Fund.

## 1.1 Mainstreaming of programmed support for climate action

Support for climate action in ESIF

Overall, The European Structural and Investment Funds allocate as much as 25.2 % of their support for climate action. Estimates of the contributions made towards climate change mitigation and climate change adaptation shows that 42 % of the support for climate action is marked towards mitigation purposes, while 15 % is for adaptation. Further, 42 % of the support for climate action can be categorised as being supportive for adaptation and/or mitigation. This means that the concerned investment types have the potential to contribute to both climate change adaptation and to climate change mitigation. The dominant share of this 42 % comes from the European Agricultural Rural Development Fund where the main allocation is likely to contribute directly or indirectly to climate change adaptation.

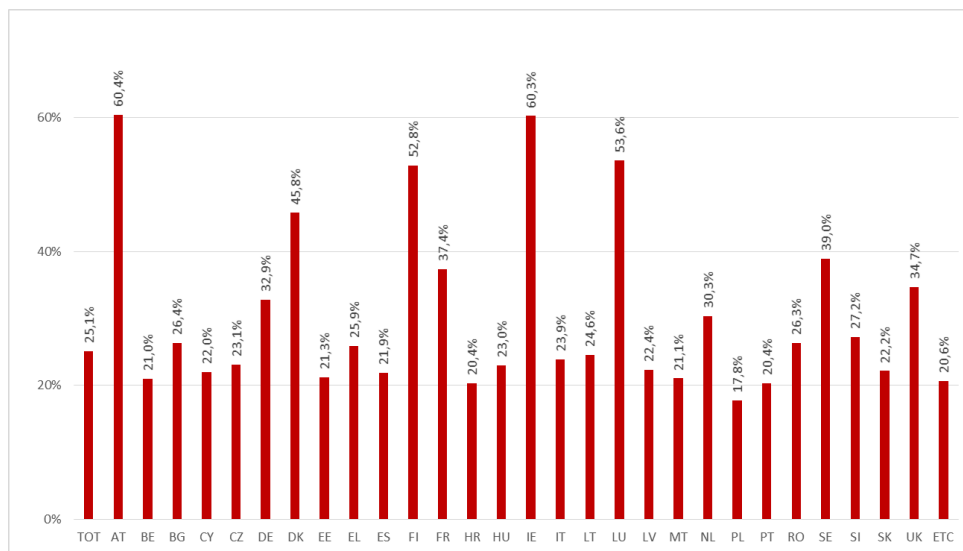
*Table 1-1 Union Support for climate action under the European Structural and Investment Funds and estimated distribution of support over climate change adaptation and climate change mitigation*

Fund/ Programme	Total support (MEUR)	Share for climate change mitigation (%)	Share for climate change adaptation (%)	Share for: a) climate change adaptation and/or mitigation and b) measures that have the potential to support climate change mitigation and/or adaptation (%)	Total share for climate action (%)
European Regional Development Fund	187,469	15.9	1.6	1.7	19.1
Cohesion Fund	63,393	21.1	4.7	2.0	27.8
European Social Fund	82,223	1.4	-	-	1.4
Youth Employment Initiative	6,672	-	-	-	0.0
European Agricultural Fund for Rural Development	98,619	5.5	7.6	44.0	57.1
European Maritime and Fisheries Fund	5,749	-	-	-	17.7
<b>Total</b>	<b>444,126</b>	<b>11.2</b>	<b>3.0</b>	<b>10.7</b>	<b>25.2</b>
European Territorial Cooperation	9,192	11.2	4.7	4.8	20.6
<b>GRAND TOTAL</b>	<b>453,318</b>	<b>11.2</b>	<b>3.1</b>	<b>10.6</b>	<b>25.1</b>

ESIF support for climate action in Member States

Ten Member States allocate more than 30 % of the support for climate action. All the ten Member States are among the 13 Member States that do not have Cohesion Funds programmes. In such Member States, the European Agricultural Fund for Rural Development is relatively more important as it constitutes a higher share of the overall funding. In all 28 Member States, this fund allocates the highest share of its support for climate action compared to the other European Structural and Investment Funds. Thus is thus the main factor that explains why the, predominantly wealthier Member States with no Cohesion Fund programmes, overall achieve the highest shares for climate action support.

Figure 1-1 Union support for climate action under the European Structural and Investment Funds at Member State level and for European Territorial Cooperation (ETC)



Mainstreaming support for climate action across themes

The Common Provisions Regulation defines eleven Thematic Objectives. They set the scope of the Partnership Agreements and the programmes. Each fund covers all or some of the Thematic Objectives. The Social Fund covers Thematic Objectives 8, 9, 10 and 11; the Cohesion Fund covers Thematic Objectives 4, 5, 6, 7 and 11; and the European Maritime and Fisheries Fund covers Thematic Objectives 3, 4, 6 and 8.

Table 1-2 Distribution of Union support under European Structural and Investment Funds for climate action over Thematic Objectives

Thematic Objective		Share of ESIF climate support, %
1	Strengthening research, technological development and innovation	1.5
2	Enhancing access to and use and quality of ICT	>0
3	Enhancing competitiveness of SMEs	0.7
4	Supporting the shift towards a low-carbon economy in all sectors	34.3
5	Promoting climate change adaptation, risk prevention and management	6.5
6	Preserving and protecting the environment and promoting resource efficiency	42.4
7	Promoting sustainable transport and removing bottlenecks in key networks and infrastructures	9.7
8	Promoting sustainable development and quality of employment and supporting labour mobility	4.8
9	Promoting social inclusion, combating poverty and any discrimination	
10	Investing in education, training and vocational training for skills and lifelong learning	
11	Enhancing institutional capacity of public authorities and stakeholders and efficient public administration	0.1
<b>GRAND TOTAL</b>		<b>100 %</b>

TO4 and TO5 are Thematic Objectives that most directly support climate action. TO6 and TO7 to some extent directly support climate action. The contribution from the remaining Thematic Objectives to climate action is predominantly of a more

indirect nature. The distribution of the support for climate action under the European Structural and Investment Funds mirrors these characteristics.

The European Agricultural Fund for Rural Development translates the Thematic Objectives into funds-specific Union Priorities and Focus Areas. The European Maritime and Fisheries Fund also translates the Thematic Objectives into Union Priorities. For both funds, the funds-specific regulation defines the measures that can be used. The programmes select the adequate measures to promote the identified priorities within a given Focus Area or Union Priority.

#### Climate markers

A common methodology has been developed to calculate support for climate action. The common methodology defines a range of investment categories and attaches to each of those a marker of 0 %, 40 % or 100 %. All programmes must report on how they intend to use their support. For climate action, they do so by means of distributing the support into these categories. A marker of 40 % thus implies that 40 % of the support allocated into this specific category counts towards climate action. The common methodology has strong merit in that it provides for a transparent, consistent and mechanical method for calculating support for climate action. This, on the other hand, also implies a certain disregard of important programme/context specific details. Thus, for example, any kind of rail investment always counts 40 % towards climate action, disregarding the actual scope and contents of the investment in question. Likewise, support for organic farming programmed under Union Priority 4 (restoring, preserving and enhancing ecosystems related to agriculture and forestry) will always count 100 % towards climate action, regardless of the actual content of the measure. This indicates that the markers are probably more reliable when estimating the overall support for climate action under the European Structural and Investment Funds than when assessing the programme-specific contribution.

However, the marker system also involves a significant difference in the level of detail when comparing across funds. The European Social Fund operates with a low level of detail. This, it can be argued, reasonably reflects its indirect contribution to climate action. The European Regional Development Fund has more than 100 investment categories. Thus, its marker system is fairly detailed. By comparison, the European Agricultural Fund for Rural Development operates with a lower level of detail. Its marker system operates at the level of Union Priority and Focus Area. All Focus areas under two of its six Union Priorities carry a marker of 100 % (Union Priority 4 and Union Priority 5 (promoting resource efficiency and supporting the shift towards a low carbon and climate resilient economy in agriculture, food and forestry sectors)). Two other Focus Areas (of two other Union Priorities) carry a marker of 40 %: Supporting farm risk prevention and management (under Union Priority 3) and fostering local development in rural areas (under Union Priority 6)

This means that for example any measure applied in the context of Union Priority 4 will always count 100 % towards climate action. A more detailed marker system for the European Agricultural Rural Development Fund would make the calculation of support for climate action more aligned across funds. However, the development of a more detailed system of markers for Rural Development is likely to be a complex exercise, given the complexity of the programme. In the European Maritime and Fisheries Fund, the programmes only present the overall and aggregated result,

i.e. the total support for climate action. Thus, one cannot trace climate support to the specific measures from the programme itself. A higher level of transparency in future programmes can facilitate a more detailed analysis of the climate contents of the programmes under the European Maritime and Fisheries Fund.

## 1.2 Climate action in the programmes

Comparing the first official versions of the Partnership Agreements and the programmes to the final and approved versions, one generally observes that not only has the support for climate action often increased in the approved programmes, but an effort has also been made to more explicitly consider climate action in the programmes. This applies at the strategy level, as well as in the specific descriptions. Considering the way and extent to which climate action is addressed in the programmes, the following overall conclusions can be made:

**In Partnership Agreements**, climate action is *always* explicitly referred to in Thematic Objectives 4, 5 and 6. Those are also Thematic Objectives that relate directly to climate action. In around *half of the* Agreements, explicit mentioning of climate action is made in regard to Thematic Objectives 1, 3 and 7. Ten Partnership Agreements explicitly mention climate action in the case of Thematic Objectives 8, 9 and/or 10. With regard to Thematic Objective 2 and 11, only a few Agreements make an explicit reference to climate action.

**In European Regional Development Fund and the Cohesion Fund**, climate action is supported in several Thematic Objectives (notably in Thematic Objective 4 on supporting the shift to a low-carbon economy). The actions included are mainly related to climate change mitigation and comprise support to energy efficiency in buildings, more sustainable transport, energy efficiency in SMEs and renewable energy, Thematic Objective 7 also provides a significant contribution to climate change mitigation through supporting actions that promote more sustainable transport, including rail transport. Thematic Objective 5 considers climate change adaptation, and 11.5 % of support for climate action is allocated under TO5. Considerations on climate action are typically included in all parts of the Operational Programmes. There are references to climate change in the description of programme strategies - as part of the justification for the selected Thematic Objectives. In the description of expected results, actions and output/result indicators climate change considerations are included in particular for Thematic Objectives 4 and 5. The guiding principles for selection of actions to be supported contain less specific and detailed references to climate change.

**For the European Territorial Cooperation Goal**, climate action is supported through multiple Thematic Objectives. Most climate action can be found in Thematic Objective 6, which targets the environment and resource efficiency. In this context, many of the actions focus on improved environmental management, such as biodiversity. Thus, climate action under this objective, of which most relates to adaptation, is integrated with environmental management. Thematic Objective 5 is concretely dedicated to climate change adaptation, and accounts for about one-fifth of climate action under the ETC. Most of the actions cover preventive and adaptive measures like flood protection and coordination. Thematic

Objective 4, which supports the shift to a low carbon economy, includes such themes as energy efficiency, renewable energy and, partly, energy systems. Furthermore, climate change mitigation is allocated to Thematic Objective 7, which covers sustainable transport. Transnational programmes have a higher climate share than cross-border and interregional programmes. However, cross-border programmes have a stronger focus on adaptation than the other two programme types. The descriptions of climate-specific actions and climate-related selection criteria remain fairly generic. Furthermore, the guiding principles on selection criteria are not well developed.

**In European Social Fund programmes**, climate change mitigation is more often referred to than climate change adaptation. There is a tendency to mention climate action mainly in the description of actions to be supported. However, climate action is only rarely considered when setting out the results and the considerations for selection of projects. The latter is observed only in a few cases, and for Thematic Objective 10 (education, training and lifelong learning) only. There is not, across the 187 ESF programmes, a consistent approach in the way that climate action is addressed, and how it relates to the support marked for climate action. There are thus cases with rather elaborate and specific climate-relevant descriptions, but no accompanying support marked for climate action, and other cases with less elaborate and specific descriptions, but quite substantial support marked for climate action.

**In European Agricultural Fund for Rural Development**, climate action is mainly targeted at climate change adaptation, often foreseen as an integrated part of environmental management activities (such as biodiversity protection, soil conservation or water resource development). This mirrors the priority given to Union Priority 4 in the financial allocations of the Rural Development Programmes. The key measure is, in almost all cases, the Agri-Environment-Climate measure. All Rural Development Programmes select this measure. Mitigation plays a less prominent role. Still, a minority of programmes explicitly dedicate support and measures to reduce emissions of greenhouse gasses or enhance carbon sequestration. Indirect climate action is often observed through activities seeking to address other environmental concerns. Examples of this include soil or water management activities, biodiversity protection, or livestock measures. Many programmes do explicitly mention climate considerations in their analysis of Strengths, Weaknesses, Opportunities and Threat at the needs and strategy level. The description of the specific climate measures is however less concrete on climate action. This makes it difficult, *ex ante*, to assess the expected climate benefits that will result from the identified climate and measures allocation.

**In European Maritime and Fisheries Funds** programmes, the climate-relevant content is typically explicit at the overall and strategic levels. Climate action is most pronounced in Union Priority 1 and Union Priority 2 (promoting environmentally sustainable, resource-efficient, innovative, competitive and knowledge-based fisheries and aquaculture, respectively). These two Union Priorities both cover Thematic Objectives 3, 4 and 6 and, in total, they account for slightly less than 50 % of all support of the European Maritime and Fisheries Fund.

## 1.3 Considerations for implementation and future programming

While the scope of this study has been to analyse the achievements in programmes and Partnership Agreements in regard to the mainstreaming of climate action, the analysis of achievements does point to issues for future consideration:

- › While not legally binding, the 20 % political target has contributed to establishing a readiness in Member States to on-board climate action into the programming exercise in a fairly horizontal manner: across themes and funds. The target underpins the 2020 Strategy's aim for a shift towards a low-carbon, resource-efficient and climate-resilient economy, and it relates clearly to the 2014-2020 regulatory framework. The latter includes, in particular, the climate markers, the framing of the Thematic Objectives, the ring-fencing of Thematic Objective 4 in the European Regional Development Fund, and the horizontal objectives of Article 8 in the Common Provisions Regulation. Maintaining, and possibly strengthening, this political and regulatory push in the next programming period can be an important factor for a continued focus on climate action in the European Structural and Investment Funds, and it can further strengthen the readiness of Member States.
  
- › At the EU level, other important factors that have stimulated the readiness of Member States include the Position Papers' explicit treatment of climate action and the informal and formal dialogues between Managing Authorities and the Commission including the inclusion of climate action considerations in the Commission responses to the first official versions of programmes. Guidance material issued by the Commission has also contributed to stimulating the readiness of Member States. It may, however, be considered to devote a particular effort to following the 2014-2020 implementation with a view to extracting good, programme-specific experience that can feed into future guidance material. The added-value of this exercise would be the provision of experience-based (drawing on both programme content and implementation experience) inspiration for future programming. It could also aim to streamline better how programmes address horizontal principles and possibly also to enhance the role that Strategic Environmental Assessments and Ex Ante Evaluations can play in enhancing the attention to climate action in the programme preparation phase.
  
- › In supplement to the political target of 20%, the common methodology for calculating support for climate action provides another quantitative stimulus to Member States to carefully consider climate action in their programmes. The methodology has strong merits in that it is comparable, transparent, and mechanical. More comparable levels of detail in the marker system would, however, ensure a higher level of alignment across funds, and thereby allow for a higher level of comparability.
  
- › The common methodology for tracking climate support is not immediately applicable to estimate the support for climate change adaptation and for

climate change mitigation, respectively. It may be considered to introduce such a differentiation in the future.

- › The programmes overall indicate an aspiration to spend 25.1 % of their support from the European Structural and Investment Funds for climate action. The implementation phase is the period where this aspiration will materialise. Programmes apply over a 7-year time horizon, and hence there is scope for flexibility in the implementation. That said, monitoring of the programmes to ensure that aspirations for climate action are pursued to the extent possible and relevant remains important. Careful monitoring can provide valuable insights that can feed into experience-based guidance for the next programming period and into a possible review of the common methodology.



## 2 Introduction

### 2.1 Scope of this report

The mainstreaming of climate action into European Structural and Investments Funds (ESI Funds or ESIF) has a prominent position in European Union (EU) regulations and policies governing the 2014-2020 period. Mainstreaming aims to ensure that climate action is embedded in programming. This is achieved directly, in terms of supporting investments such as those which promote energy efficiency, greenhouse gas (GHG) emissions reductions, use of renewable energy and resilience to climate change. Indirectly, it is achieved e.g. in terms of considering climate-relevant aspects of research investments, skills upgrading and nature protection. The emphasis on mainstreaming climate action is also reflected in the European Council's February 2013 conclusion that climate action objectives will represent at least 20 % of EU spending in the 2014-2020 period and will, thus, be reflected in the appropriate instruments to ensure they contribute to strengthening energy security, building a low-carbon, resource-efficient and climate-resilient economy. Similarly, The European Parliament resolution of October 2012 indicates that the Parliament '*strongly supports the Commission's proposal to mainstream measures to combat climate change with the aim of at least 20 % of expenditure being climate-related...*'.

This report analyses the programming achievements in this regard. It considers the mainstreaming results for all European Structural and Investment Funds (ESIF) under shared management, i.e. the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the European Social Fund (ESF), the European Agricultural Fund for Rural Development (EAFRD), and the European Maritime and Fisheries Fund (EMFF). Regarding the ERDF, a separate analysis is provided on European Territorial Cooperation (ETC). ETC is a Cooperation Programme for ERDF under the ETC goal, and is henceforth referred to as the 'ETC programme'. It has its own regulation. The report also considers the achievements at the overall level, including at the level of Partnership Agreements (PAs).

The report builds on the observations and lessons learned from the contract on 'mainstreaming of climate action into ESI funds' <sup>(1)</sup>. Among other things, this contract has assisted in scrutinizing all PAs, Operational Programmes (OPs) and Rural Development Programmes (RDPs) with a view to assessing their achievements and further potentials for mainstreaming <sup>(2)</sup>. Each scrutiny thus provides an independent technical analysis and assessment of the OP and PA in question. The DG CLIMA Fact sheets on the assessment of climate action explain the funds-specific scrutiny elements in more detail, while another set of fact sheets sets out potentials for climate action <sup>(3)</sup>.

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<sup>1</sup> Mainstreaming of climate change into CSF-Funds 2014-2020. CLIMA.C.3/SER/2012/0011

<sup>2</sup> In this report, the term Programme is used when referring to any Programme in any of the five funds

<sup>3</sup> [http://ec.europa.eu/clima/publications/index\\_en.htm#Mainstreaming](http://ec.europa.eu/clima/publications/index_en.htm#Mainstreaming)

## 2.2 Structure of this report

This report is structured as follows:

The remainder of **Chapter 2** explains the background for the analysis. It sets out the assessment approach and it describes the key assessment questions.

**Chapter 3** provides a global assessment. The chapter analyses the support allocated for climate action, both for all ESI Funds in total and on a country-by-country basis. The chapter looks into the climate contribution from the individual Thematic Objectives (TOs) and considers the contribution to climate action from the different funds. Further, it analyses the respective allocations for climate change mitigation and adaptation. The chapter looks into the key approaches to climate action in the PAs of the 28 Member States.

**Chapter 4** provides an assessment of the mainstreaming achievements of the ERDF and CF. The chapter looks into how climate change adaptation and mitigation has been covered in the OPs, and how support for climate action has been distributed according to TOs, Investment Priorities (IPs) and particularly relevant Intervention Fields (IFs). The assessment applies a quantitative and qualitative approach, thus looking into financial allocations as well as the climate-relevant characteristics of the OPs. The chapter summarises the key climate-relevant developments that can be observed when comparing final and approved OPs to the versions submitted for the first Interservice Consultation (ISC).

**Chapter 5** provides an assessment of the mainstreaming achievements of the ETC programme. It considers to what extent climate action was taken on board in the OPs, distinguishing between adaptation and mitigation. It illustrates approaches taken to climate action and sets out how support for climate action is distributed according to TOs and IFs. The chapter summarises the key climate-relevant developments when comparing the final and approved OPs to versions submitted for the first ISC.

**Chapter 6** provides an assessment of the mainstreaming achievements of the ESF. It considers how climate action was taken on board in the OPs in terms of financial allocations, selected TOs, selection criteria and/or explicit consideration in the defined eligible actions. It provides an assessment of the treatment of adaptation and of mitigation separately. The chapter summarises the key climate-relevant developments when comparing the final and approved OPs to versions submitted for the first ISC.

**Chapter 7 and Chapter 8**, respectively, provide an assessment of the mainstreaming achievements of the EAFRD and the EMFF. These chapters analyse financial allocations for climate action through the funds: at the overall and Member State levels. The EAFRD chapter provides analyses that breaks down financial allocations at the Member State level into Union Priorities (UPs) and Focus Areas (FAs), and analyses what measures are put in place to promote the selected Focus Areas, including how climate change adaptation and climate change mitigation is covered in the RDPs – at the EU28 level. Regarding EMFF, the OPs do not provide detailed breakdowns of the financial allocations for climate

action. Hence, the analysis of the approach to climate action is of a more qualitative nature, but framed along the same lines as the EAFRD chapter.

## 2.3 Background

### 2.3.1 Work undertaken

The report primarily builds on a range of deliverables produced under the three-year contract on ‘Mainstreaming of Climate Action into ESI Funds 2014-2020’:

- › Scrutiny reports for 558 individual OPs, RDP and PAs. Each PA and Programme was scrutinized at least twice. A scrutiny was typically done at every stage where an Inter-Service Consultation (ISC) was launched in the Commission on a particular Programme or PA.
- › Summary reports of all adopted programmes and PAs.
- › A comprehensive database that summarises the key climate-relevant contents of the individual programmes and PAs, including the financial data.

The report further builds on a number of deliverables produced in the course of implementing the contract (see Annex 1). Also, thorough reviews of essential EU legislation and other EU documents (see Annex 2) constituted an integral part of the implementation of the contract.

### 2.3.2 EU legislation, strategies and objectives

ESI Funds are composed of the cohesion policy funds (ERDF including ETC, CF and ESF), the EAFRD and the EMFF. The CF aims to reduce economic and social disparities and to promote sustainable development <sup>(4)</sup>.

Three strands mutually promote the mainstreaming of climate action into ESI Funds: the EU 2020 Strategy; the EU regulatory framework for the ESI Funds and the EU Multiannual Financial Framework (MFF).

#### EU 2020 Strategy

The Europe 2020 Strategy for smart, sustainable and inclusive growth aims for a shift to a low-carbon, resource-efficient and climate-resilient economy. EU policies and legislation support these aspirations, e.g. through the 20/20/20 targets for climate change mitigation: to reduce greenhouse gas emissions by 20 % compared

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<sup>4</sup> [http://ec.europa.eu/regional\\_policy/en/funding/cohesion-fund/](http://ec.europa.eu/regional_policy/en/funding/cohesion-fund/)

to 1990 levels, to increase the share of renewable energy sources in our final energy consumption to 20 %, and a 20 % increase in energy efficiency <sup>(5,6)</sup>.

#### EU MFF 2014-2020

As mentioned, the European Council's conclusions in February 2013, supported by the European Parliament in the October 2012 resolution stated that climate action objectives will represent at least 20 % of EU spending in the 2014-2020 period. The EU Multiannual Financial Framework (MFF) is €1.082.5 billion for 2014-2020 (current prices (2015)) <sup>(7)</sup> and approximately 42 % of the EU 2014-2020 budget will be spent through ESI Funds <sup>(8)</sup>.

#### The common methodology for climate tracking

The EU has adopted a common methodology (part of the regulatory framework) to track support for climate action <sup>(9)</sup>. The common methodology defines more than 100 categories of intervention <sup>(10)</sup> and defines for each whether the allocation in question counts as contributing 0 %, 40 % or 100 % to climate action (henceforth termed 'climate markers'). Thus, the common methodology allows for a simple, mechanical and comparable calculation of the climate allocations for each OP. More specifically, for the ERDF, CF and ESF, the common methodology defines 123 Intervention Fields (IF) and sets a marker of 0%, 40% or 100% for each of them. For EAFRD, the methodology defines the climate markers (i.e. 0%, 40% or 100%) at the level of Union Priority (UP) and Focus Areas (FA). For EMFF, the methodology defines the markers at the measures level (as per the numbering of the relevant Articles in the EMFF regulation). For the sake of simplicity, this report always refers to these categories as Intervention Fields (IF's) when discussing all ESIF Funds together.

#### EU regulatory framework on the ESI funds 2014-2020

All Member States prepare a PA, which sets out the overall strategy for disbursement of ESI Funds. The Common Provisions Regulation (CPR) provides the joint and shared regulatory framework for all funds. Mainstreaming of climate action is a horizontal theme across all ESI Funds. Regarding the mainstreaming of climate action, the CPR sets out, in Article 8 on sustainable development, that 'The Member States and the Commission shall ensure that environmental protection requirements, resource efficiency, **climate change mitigation and adaptation**, biodiversity, disaster resilience and risk prevention and management are promoted in the preparation and implementation of Partnership Agreements and

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<sup>5</sup> Communication from the Commission, Europe 2020: S strategy for smart, sustainable and inclusive growth, COM (2010) 2020 final

<sup>6</sup> With the agreed 2030 EU targets, the targets now imply a 40% cut in greenhouse gas emissions compared to 1990 levels, at least a 27% share of renewable energy consumption, and at least 27% energy savings compared with the business-as-usual scenario.

<sup>7</sup> Source: [http://ec.europa.eu/budget/mff/figures/index\\_en.cfm#COM\\_2015\\_320](http://ec.europa.eu/budget/mff/figures/index_en.cfm#COM_2015_320)

<sup>8</sup>Source: DG Budget. Financial Framework for 2014.2020. Total EU budget 2014-2020 EUR 959 billion (2011 prices). Source: COWI. Final review of CSF of the ESI funds – potentials for climate action, 10 June 2014

<sup>9</sup> Commission Implementing Regulation (EU) 215/2014 (amended through Commission Implementing Regulation (EU) No 1232/2014).

<sup>10</sup> In this introductory chapter, the term intervention field is used for all funds. However, in the case of EAFRD, the coefficients are specified on the basis of Union Priority/Focus Area (Focus Area is a subset within a Union Priority). In the case of EMFF, the coefficients are specified by measure.

programmes'. Article 8 also sets out that Member States shall provide information on support for climate change objectives using a methodology based on the categories of intervention, focus areas or measures, as appropriate, for each of the ESI Funds.

The CPR defines eleven Thematic Objectives (TOs). Figure 2-1 lists the TOs. Two TOs relate directly to climate action, namely (4) Supporting the shift towards a low-carbon economy in all sectors and (5) Promoting climate change adaptation, risk prevention and management. However, climate action is not limited to these TOs. The relevance of climate action must be considered across all the TOs for a particular Programme.

Among others, the following regulatory requirements and guidance govern the mainstreaming of climate action:

- › The **ERDF** regulation sets minimum requirements for allocations to TO4 (low-carbon economy): a minimum of 20 % of total allocation for more developed regions, 15 % for transition regions and 12 % in less developed regions <sup>(11)</sup>.
- › The **ESF** does not directly target the TOs that relate immediately to climate action but the ESF regulation <sup>(12)</sup> states that the ESF shall also contribute to other TOs. In regard to climate action, this is to be promoted through 'Supporting the shift towards a low-carbon, climate-resilient, resource-efficient and environmentally sustainable economy, through the improvement of education and training systems necessary for the adaptation of skills and qualifications, the up-skilling of the labour force, and the creation of new jobs in sectors related to the environment and energy'.
- › The **Common Methodology** for climate tracking specifies that allocations for ESF interventions can count as contributing 100 % to climate action if they are 'supporting the shift to a low-carbon, resource-efficient economy'. The methodology also allows coefficients of certain IFs (or Articles) under EMFF to be increased from the pre-defined 0 % to 40 % if climate relevance is demonstrated. Lastly, the methodology allows ERDF interventions to be increased from the pre-defined 0 % to 40 % when the IF allocation is used in support of TO4 (low-carbon economy) or TO5 (climate change adaptation and risk management).
- › A minimum of 30 % of the total contribution from the **EAFRD** to each RDP must be spend on climate change mitigation and adaptation as well as environmental issues <sup>(13)</sup>.

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<sup>11</sup> Article 4 of the ERDF Regulation (1301/2013)

<sup>12</sup> Article 3.2.(a) of the ESF regulation (1304/2013)

<sup>13</sup> Article 59(6) of the EAFRD regulation (1305/2013)

## 2.4 Assessment approach

This section first provides the key questions that the report aims to answer, followed by a technical section on the key elements of programming of relevance to this report.

## 2.5 Assessment questions

The scope of the assessment is to some extent determined by the specific features of the different funds. However, at the overall level, key questions to be analysed in each chapter can be summarised as set out below.

Key characteristics of the 2014-2020 framework for programming

Before this, however it is important to note that the following characteristics apply to the 2014-2020 period (as compared to the previous programming period):

- › The Council conclusions of February 2013 states that climate action objectives will represent at least 20 % of EU spending in 2014-2020. This political target is on-boarded in the preamble (14) of the CPR which states that: ‘...the Member States should provide information on the support for climate change objectives, in line with the ambition to devote at least 20 % of the budget of the Union to those objectives, using a methodology based on the categories of intervention, focus areas or measures...’ While not legally binding, the preamble makes an explicit reference to the political target of 20 %. The resolution of the European Parliament of October 2012 expresses support of this aspiration. This report uses the political target of 20% as a point of reference
- › A more prominent position for climate change adaptation than previously in the regulatory framework, in particular through TO5
- › A detailed and operational climate-tracking methodology
- › Fund-specific regulatory requirements for financial allocations for climate change mitigation (TO4) in ERDF
- › The regulatory frameworks for EMFF and ESF require the OPs to pay explicit attention to climate action on a wider scale than it was previously the case
- › DG CLIMA has thoroughly reviewed all draft programmes and PAs and provided specific and detailed comments to those during the Commission’s Inter-Service Consultations <sup>(14)</sup>.

Key questions

The key questions that the analyses aim to answer include:

- › **Reaching the political 20 % target:** To what extent has the political target of 20 % been achieved globally? and to what extent have Member States

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<sup>14</sup> To support this commenting, this project has delivered scrutiny reports for all programmes and PAs

succeeded in contributing to this? Which funds contribute to this? Which TOs contribute? Which IFs/FAs/measures contribute? How much of the allocation relates to climate change adaptation? How much relates to climate change mitigation?

- › **Climate change adaptation:** To what extent do programmes and PAs consider climate change adaptation – strategically and operationally? How much support is allocated for adaptation? What particular themes are supported (considering Thematic Objectives (TOs), Investment Priorities (IPs), UPs and measures) are supported? To what extent has climate change resilience been considered across the board? To what extent has climate change adaptation been addressed by all funds? To what extent have EMFF and ESF delivered on adaptation (being the two funds where climate change adaptation is least pronounced in the regulatory framework)?
  
- › **Climate change mitigation:** To what extent do programmes and PAs consider climate change mitigation – strategically and operationally? How much support is allocated for mitigation? What particular themes or sectors (including TOs, IPs, UPs and measures) are supported? To what extent has climate change mitigation been considered across the board (e.g. in selection criteria)? To what extent do ESF OPs contribute, and through which IPs and types of actions? How has the requirement for thematic concentration (ERDF regulation) been reflected in programmes? Thematic concentration implies that a certain fraction of the support must be allocated for two or more of Thematic Objectives numbers 1, 2, 3 and 4, and that a certain fraction of this must be allocated for TO4 <sup>(15)</sup>.
  
- › How is the horizontal **principle of sustainability** (Article 8 of CPR), described above, reflected in programming?

While the scope of this report is to assess the mainstreaming achievements of the 2014-2020 programmes and PAs, each chapter nevertheless also concludes by listing key climate-relevant observations of possible future relevance that indirectly derives from the analyses undertaken.

Programming logic and key concept

The below provides a highly simplified summary of the key elements of the approach that should be, and is taken when elaborating the PAs and the programmes.

Tracking support for climate action

PAs show the selected TOs, and for each of those the PA provides a summary of the main expected results for each of the ESI Funds. It also provides the indicative allocation of support and the total indicative amount of support for climate action.

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<sup>15</sup> Article 4 of the ERDF regulation. The exact requirements vary, depending on whether the region in question is more developed, in transition, or less-developed. In the former case, at least 80% of it must be planned for the four mentioned TOs, and at least 20% must be used for TO4. The corresponding minimum requirements are: 60%/15% and 50%/12% for transition and less-developed regions respectively.

Figure 2-1 Overview of key concepts and terms of the legislative framework for programming of ESI Funds

**PARTNERSHIP AGREEMENTS** define the overall strategy and priorities, and set out the indicative allocation of support according to, among other things, the Thematic Objectives. There is one Partnership Agreement for each Member State. The Partnership Agreement constitutes the umbrella for the detailed and funds-specific programming in the Member State in question.

In **ESF, CF, and ERDF (including ETC)**, each **OP** defines its **Priority Axes**. Each Priority Axis consists of one or more **Thematic Objectives** and includes one or more **Investment Priorities**. The eligible Investment Priorities are defined for each TO in the regulation. The selected Investment Priorities are then further detailed through the setting of **Specific Objectives, Results and Actions**. For each of the selected TOs under a given Priority Axis, the budget is broken down into support categories, i.e. **Intervention Fields**. **The interrelationship between these elements is also shown in figure 1-2.**

In **EAFRD**, the TOs are translated into six **Union Priorities** and it defines **Focus Areas** within these Union Priorities. The regulation defines the specific **measures** that can be used across Union Priorities and Focus Areas. The individual **RDP** specifies which measures it intends to use for the selected Focus Areas. It also provides the specific allocation of support according to these categories.

In **EMFF**, the TOs are translated into six **Union Priorities**. The regulation defines eligible **measures** for each Union Priority. The **OP** sets out the Union Priorities and the accompanying measures that it will support, and it specifies the budget according to measures-specific climate marker.

**THEMATIC OBJECTIVES** frame the 2014-2020 programming. The Thematic Objectives are:

- (1) Strengthening research, technological development and innovation.
- (2) Enhancing access to and use and quality of, ICT.
- (3) Enhancing competitiveness of SMEs, of the agricultural sector (for the EAFRD) and of the fishery and aquaculture sector (for the EMFF).
- (4) Supporting the shift towards a low-carbon economy in all sectors.
- (5) Promoting climate change adaptation, risk prevention and management.
- (6) Preserving and protecting the environment and promoting resource efficiency.
- (7) Promoting sustainable transport and removing bottlenecks in key networks and infrastructures.
- (8) Promoting sustainable development and quality of employment and supporting labour mobility.
- (9) Promoting social inclusion, combating poverty and any discrimination.
- (10) Investing in education, training and vocational training for skills and lifelong learning.
- (11) Enhancing institutional capacity of public authorities and stakeholders and efficient public administration

Member States shall provide information on the support for climate action in each Programme using a methodology based on IFs, FAs or measures (or articles), as appropriate, for each of the ESI Funds. The below sets out which TOs apply to the different funds.



Tracking climate support in ERDF and CF

At the Programme level, the indicative allocation for climate action is derived from the allocations that the Programme in question provides for each IF. The defined allocations can also be directly traced to the concerned Priority Axes, but not to the specific IPs. This implies that, for the ERDF, CF and the ETC programme, the analysis of financial allocations for climate action concentrates on IFs and on estimates of allocations for TOs, whereas the analysis of climate mainstreaming vis-à-vis the IPs is of a more qualitative nature.

Table 2-1 Overview of TOs covered in the individual ESI Funds

TO	Theme	ERDF	ETC	CF	ESF	EAFRD	EMFF
1	RD&I	X	X			X	
2	ICT	X	X			X	
3	Competitiveness of SMEs	X	X			X	X
4	Low-carbon economy	X	X	X		X	X
5	Climate change adaptation and risks	X	X	X		X	X
6	Environment and resources	X	X	X		X	X
7	Transport	X	X	X		X	
8	Employment	X	X		X	X	X
9	Inclusion, discrimination, poverty	X	X		X	X	
10	Education and skills	X	X		X	X	
11	Institutional capacity	X	X		X	X	

Tracking climate support in ESF

In ESF, the indicative allocation for climate action is only defined at the level of Priority Axes. The OP does not detail climate spending according to specific IFs, IPs or TOs. The financial allocations for climate action is analysed at the OP level and TO levels <sup>(16)</sup>. In the latter case, where Priority Axes combine two or more TOs, the indicated climate-relevant spending is distributed across the concerned TOs according to the distribution of the IFs for that Priority Axis.

It is possible to combine – in one OP – an ESF with an ERDF/CF Programme. In this report, such OPs are termed ‘multi-fund OPs’. These OPs are discussed in the fund-specific chapters.

Tracking climate support in EAFRD

In EAFRD, the below (1-6) Union Priorities (UPs) apply in a similar manner as the TOs for the aforementioned funds. UP4 and 5 are the main climate-relevant priorities, with supplementing contributions possible from UP3 and UP6 <sup>(17)</sup>. Each UP includes a number of Focus Areas (FAs). While climate change adaptation can be supported through several UPs, climate change mitigation is mainly linked to

<sup>16</sup> This involves some level of estimate in OPs with Priority Axes consisting of more than one TO

<sup>17</sup> More specifically, all indicative support under UP4 and UP5 carries a climate marker of 100% whereas support to support farm risk prevention and management under UP3 as well as support for fostering local development in rural areas under UP6 both carry a marker of 40%

FAs 5d and e. FAs 3b and 6b are assigned a climate marker of 40 % and all FAs under UP 4 and 5 are assigned a marker of 100 % <sup>(18)</sup>. This means that all allocated funds contributing to UP4 and 5 will count fully as contributing to climate action, whereas 40 % of funds allocated to FA 3b and 6b will count as climate action <sup>(19)</sup>.

#### Union Priorities for the EAFRD

- (1) fostering knowledge transfer and innovation in agriculture, forestry, and rural areas
- (2) enhancing farm viability and competitiveness of all types of agriculture in all regions and promoting innovative farm technologies and the sustainable management of forests
- (3) promoting food chain organisation, including processing and marketing of agricultural products, animal welfare and risk management in agriculture
- (4) restoring, preserving and enhancing ecosystems related to agriculture and forestry
- (5) promoting resource efficiency and supporting the shift towards a low-carbon and climate-resilient economy in agriculture, food and forestry sectors
- (6) promoting social inclusion, poverty reduction and economic development in rural areas

Measures are not defined at the level of UP, but can be put into use to promote any UP.

#### Tracking climate support in EMFF

Also, the EMFF translates its TOs into funds specific UPs. In EMFF, the climate-related allocations in a given OP are calculated on a per-measure (as identified by Article number) basis. Each measure corresponds to an IF. Some IFs allow the percentage to be increased from 0 % to 40 % if the concrete actions are expected to be climate-relevant.

However, the OP only provides an overall figure for climate-related spending – indicating how much of total support is climate marked. Furthermore, the individual EMFF OPs do not provide specific details on the envisaged climate-relevant contents of the individual measures.

#### Union support

The analyses of this report consider Union support (under ESIF and under shared management). Technical Assistance (TA) is not included except when considering global Union support and only when explicitly stated. Henceforth in this report, the term 'support' expresses the *Union financial support* that is provided through ESIF under shared management.

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<sup>18</sup> In accordance with implementing regulation 215/2014 article 6, and using the coefficients of annex II of 1303/2015.

<sup>19</sup> As concerns the fund-specific 30% target for EAFRD, the EAFRD regulation (EU 1305/2013) article 59(6) stipulates how funds allocated at the measure level are to be considered to contribute. Allocations for the measures set out under articles 17, 21, 28, 29, parts of article 30, and articles 31, 32 and 34 should be used to calculate the allocation for the 30% target.

**Union Priorities for the EMFF**

UP1: Promoting environmentally sustainable, resource-efficient, innovative, competitive and knowledge-based fisheries

UP2: Fostering environmentally sustainable, resource-efficient, innovative, competitive and knowledge-based aquaculture

UP3: Fostering the implementation of the Common Fisheries Policy (CFP)

UP4: Increasing employment and territorial cohesion

UP5: Fostering marketing and processing

UP6: Fostering the implementation of the IMP

Measures are defined at UP level, i.e. the regulation defines for each UP which measures can be used to promote that UP

The most detailed common ‘denominators’ across all funds are the TOs. Consequently, the assessment seeks to apply a TO perspective, supplemented with other essential, but more Programme-specific, features. The latter applies in particular, but not solely, to EMFF and EAFRD. These two funds translate as mentioned above the Thematic Objectives into Union Priorities.

Breakdown of financial allocations according to TOs

The OPs prepared under ERDF, CF and ESF allocate spending according to Priority Axes. A Priority Axis may consist of one or more TOs, but the financial allocations (including the allocations for climate action) are provided at the level of Priority Axes only <sup>(20)</sup>. This is shown in the table below.

Figure 2-2 The relationship between Priority Axes, TOs, IPs and IFs.

Priority Axes	Intervention Fields	Investment Priorities
One Priority Axis consists of one or more TOs	For each Priority Axis, the OP provides information on how much support is planned for at the IF level. All IFs that carry a marker of 40 % or 100 % thus provide a positive contribution to the climate allocation of the OP	Under each Priority Axis, IPs are selected. The eligible investment priorities are contained in the regulation in question and relate specifically to one specific TO only. For each IP, Specific Objectives are formulated and, among other things, what results and outputs are expected, what actions will be financed and what indicators will be used are described. However, financial allocations for climate action are not at the IP/TO level

As said, information on financial allocations is only provided at the level of Priority Axes. Hence, when a Priority Axis covers more than one TO and includes IFs with

<sup>20</sup> When following and monitoring implementation, however, it will be possible to trace financial allocations on a TO basis.

positive allocations for climate action, it cannot be directly observed as to which TO the allocation belongs. Therefore, in these cases, it needs to be approximated through manual estimate of the allocation to TOs for each of the concerned IFs <sup>(21)</sup>.

Calculation  
adaptation /  
mitigation support

In order to calculate the distribution of the climate action support between adaptation and mitigation support, there are some underlying assumptions. These assumption are summarised in the below table and further described below.

Table 2-2 Overview of the categorisation of Intervention Fields<sup>1)</sup>.

Fund	Adaptation	Mitigation	Both adaptation and mitigation
CF/ERDF incl. ETC	IF087 and IF100	Rest of IFs	IF021, IF065, IF085 and IF086
ESF	-	All climate action is mitigation-related	-
EAFRD	Focus Area 3b, 5a, and 6b	Focus Area 5b, 5c, 5d and 5e	Focus Area 4a, 4b and 4c.
EMFF	-	-	-

<sup>1)</sup>Climate proofing can be an element in the infrastructure oriented IFs categorised under 'mitigation', but this aspect is, for the sake of simplicity not taken into consideration in the above categorisation.

The support for *climate change adaptation* in **CF/ERDF (including ETC)** is defined as consisting of IF087 and IF100. Support for *both climate change adaptation and mitigation* is defined as consisting of IF021, IF065, IF085 and IF086. All other IFs are supporting *climate change mitigation*.

While ESF and EMFF also include allocations for climate action, the scoping of ESF and EMFF OPs does not allow for a (clear) breakdown between adaptation and mitigation. All **ESF** support for climate action is categorised here as *climate change mitigation*. This categorisation is based on the wording of the secondary objective. **EMFF** support for climate action is not sub-divided into mitigation and adaption.

The allocation of support for climate change adaptation over the eleven TOs is an estimate, since the division of climate action support over the TOs is not always clear in cases where a Priority Axis has several TOs. In performing the estimation, one IF is always linked to one and only one specific TO, whereas the OP might in reality have distributed this over several TOs.

For **EAFRD**, the climate-relevant UPs and FAs comprise 3b, 4a-c, 5a-e and 6b. For EAFRD, *climate change adaptation* is defined by support allocated to Focus Area 3b, 5a, and 6b. *Climate change mitigation* is defined by support allocated to FA 5b, 5c, 5d and 5e. Supporting *both adaptation and mitigation* are defined as FA 4a, 4b

<sup>21</sup> The implication is, however, that the gross allocations per TO do not match those indicated in the OP itself in all cases.

and 4c. In the case of EAFRD, it should be noted that the latter category includes a range of measures which *can* be supportive of climate change mitigation or adaptation, but they can also be scoped with only little or no climate-related contents.

### 3 Global assessment

The use of Partnership Agreements (PAs) is a novelty in the 2014-2020 period. The PAs set out the overall strategy and priorities that govern the detailed and fund-specific programming in Member States. The PAs also specify the envisaged contributions from each fund to each of the selected Thematic Objectives (TOs). Figure 2-1 lists the 11 Thematic Objectives.

This chapter provides a synthesised global assessment of the achievements in EU28 with regard to the mainstreaming of climate action. It builds on the contents of the 28 PAs. Furthermore, it draws on the funds-specific analyses of the funds-specific support presented in the chapters that follow.

The first versions of the PAs were prepared and launched for the first Inter Service Consultation (ISC1) before the regulatory framework was finally established and approved. The latter process was subject to some delays. Consequently, the first versions of the PAs tended to contain no or only indicative information on financial allocations. Still, Member States did make an effort to a) submit the first versions in due time for them to precede the funds' specific programmes and b) provide the revised versions as early as it was possible – once the Multiannual Financial Framework (MFF) was established<sup>(22)</sup>. Still, one cannot compare the first and the final versions of the PAs with a view to identifying changes in the financial allocations for climate action. The financial information contained in the first versions was in many cases highly indicative, incomplete or completely missing. Also, the first versions often had no (or incomplete) qualitative contents regarding The European Maritime and Fisheries Fund (EMFF) and, in some situations, the European Agricultural Fund for Rural Development (EAFRD).

Prior to submission of the first versions of the PAs (as well as programmes), Position Papers had been prepared by the Commission and sent to Member States on important needs to be considered in the preparation of PAs and programmes. Informal dialogues between the Commission and Member States also typically preceded the first official submission.

This chapter analyses the combined achievements of European Structural and Investment Funds (ESIF) programmes in delivering on the Council Conclusion (7-8 February 2013) which states that: *climate action objectives will represent at least 20 % of EU spending in the 2014-2020 period and therefore be reflected in the appropriate instruments to ensure that they contribute to strengthen energy security, building a low-carbon and climate-resilient economy that will enhance Europe's competitiveness and create more and greener jobs*<sup>23</sup>. The other important

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<sup>22</sup> The first PA versions for 25 MSs were submitted to the Commission in 2013, two more in January 2014, and the last one in May 2014. Revised versions that took the comments provided by the Commission into account were submitted in the January-June 2014 period.

<sup>23</sup> The political target of 20 % was supported by the European Parliament (resolution of 23rd October 2012) which expressed strong support of.. 'the Commission's proposal to mainstream measures to combat climate change with the aim of at least 20% of expenditure being climate-related....',

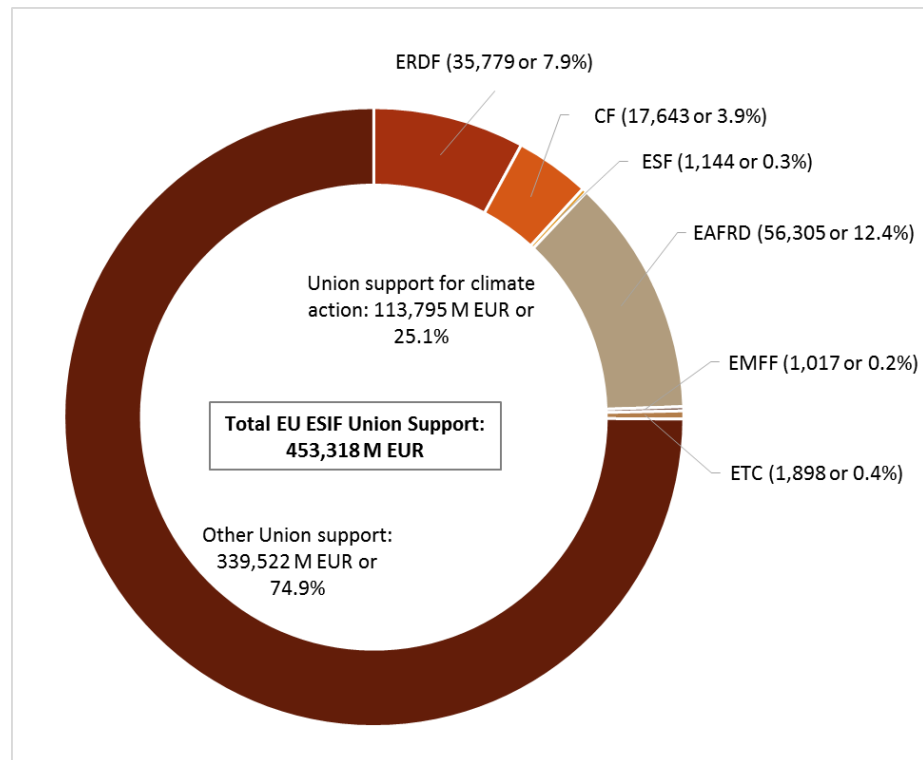
reference point for this chapter is Article 8 of the CPR and its pre-amble (14), described in the previous chapter.

### 3.1 Mainstreaming of climate action in ESIF

ESIF support and climate action

Across the board, 25 % of total ESIF support is allocated for climate action. Thus, ESIF programmes indicate that the implementation of the 2014-2020 programmes will more than merely deliver on the political 20 % target. The main contributions to this come from EAFRD, followed by the European Regional Development Fund (ERDF) and the Cohesion Fund (CF). Smaller, yet positive, contributions are also seen from EMFF and from the European Social Fund (ESF), as well as from the European Territorial Cooperation (ETC) programme (as illustrated below) which is a separate Goal under the ERDF.

Figure 3-1 Overview of support in ESIF: total and for climate action, MEUR and share in percent



ESIF support for adaptation and for mitigation

The table below provides an overview of all ESIF programmes. It shows how many OPs have been approved and the total support available in each fund. The table illustrates how much of the support under each fund is allocated for climate action. Further, the table provides the allocations (shares) for climate change mitigation; adaptation; and for investment areas that can either a) support mitigation and/or adaptation, depending on how the specific contents are scoped, or b) in the case of EAFRD, can be considered as *possibly contributing to climate action*. In the latter case, support counts as 100 % towards climate action, according to the common methodology (the climate markers).

EAFRD contributes almost half of its support for climate action. It is the second-largest fund in terms of total support. The significant contribution comes from the fact that 57.1 % of its support is allocated for climate action. The table also shows that CF allocates a significant share of its support for climate action: 27.8 %, while the share in ERDF is 19.1 %. It is also worth noting that programmes under the ETC programme allocate as much as 20.6 % of the total support for climate action. However, the ETC programme is small. Hence, its contribution to the overall 25.1 % is small: 0.4 %.

Table 3-1 Overview of ESI Funds: number of OPs, support and estimated allocation between adaptation and mitigation <sup>1</sup>

Fund/ programme	(No. Of OPs)	Total support (MEUR)	Share for climate change mitigation (%)	Share for climate change adaptation (%)	Share for climate change adaptation and/or mitigation (%)	Total share for climate action (%)
ERDF	206	187,469	15.9	1.6	1.6	19.1
CF	20	63,393	21.1	4.7	2.0	27.8
ESF	185	82,223	1.4	-	-	1.4
YEI	33	6,672	-	-	-	0.0
EAFRD	117	98,619	5.5	7.6	44.0	57.1
EMFF	27	5,749	-	-	-	17.7
<b>Total</b>	<b>455</b>	<b>444,126</b>	<b>11.2</b>	<b>3.0</b>	<b>10.7</b>	<b>25.2</b>
ETC	75	9,192	11.2	4.6	4.7	20.6
<b>GRAND TOTAL</b>	<b>530</b>	<b>453,318</b>	<b>11.2</b>	<b>3.1</b>	<b>10.6</b>	<b>25.1</b>

1) The total support (MEUR) includes Technical Assistance (TA). For programmes that combine ESF and CF/ERDF, the support from TA has been allocated to the funds in proportion to the total support from these funds in the programmes. The number of OPs column counts the number of programmes with funds-specific support. Thus, programmes can be counted twice. This happens for the 92 programmes that combine ESF with ERDF/CF, and for programmes that combine ESF with Youth Employment Initiative (YEI). The methodology on how the share for climate change adaptation and/or mitigation is calculated is described in the introduction.

Out of total climate-relevant support, 3.1 % is clearly designated for climate change adaptation. Another 11.2 % is marked for climate change mitigation. This could indicate that a relatively small fraction is allocated for climate change adaptation. However, it is important to be aware that much of the support allocated for climate change adaptation and/or mitigation (10.6 %) actually derives from EAFRD. However, It is not categorised as pure adaptation for two reasons: a) some of the FAs can, in reality, contribute to both mitigation and adaptation, and b) some of the FAs can actually serve purposes other than climate action. Still and as further explained in chapter 7 on EAFRD, much of this relates more to climate change adaptation than to climate change mitigation. Thus, in practice, and in particular

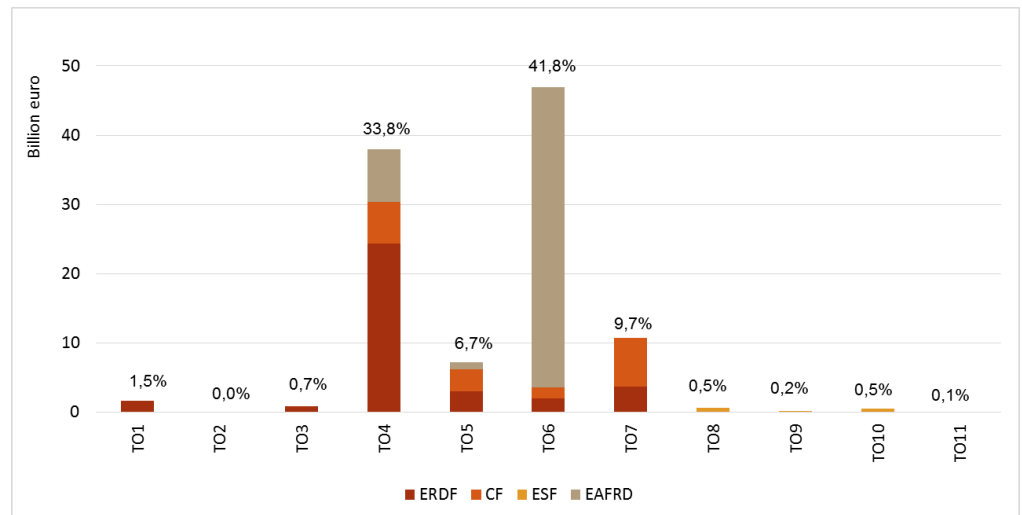


through EAFRD, the share of support that will ultimately serve adaptation purposes is likely to be significantly higher than 3.1 %.

ESIF support for climate action at the level of TOs

Support for climate action is mainly allocated under TO4 and TO6, whereas TO5 and TO7 also provide a relatively high allocation for climate action. This is in line with what one would expect from the contents of the TOs: TO4 and TO5 are the TOs with the most direct contribution to climate action, and TO6 and TO7 have a more direct contribution than the remaining TOs to climate action. EAFRD accounts for the dominant share of climate allocation in TO6, whereas ERDF counts the most in TO4. Climate action is particularly pronounced in TO4, TO5 and TO7 of the CF.

Figure 3-2 Overview of estimated support for climate action in TOs and per fund (all Member States)



Regarding TO4, it is important to mention the so-called ‘ring-fencing’ of TO4 (explained in detail in the chapter on ERDF/CF), which sets minimum requirements for the share of support that must be allocated to TO4. No similar ‘ring-fencing’ requirement applies to TO5.

### 3.2 Mainstreaming of climate action in Member States

Climate action support: TOs and individual ESI Funds

Table 3-2 provides information similar to the information provided in the above section; but at the level of the individual Member States. mainstreaming is observed in quite of few of the TOs and in most, if not all funds.

Table 3-2 Overview of support for climate action: Member State, Funds and TOs (see following page for explanatory notes to the table)

MS	Total for climate action in % of total ESIF support	Support for climate action out of total support, for each fund individually (%)					Total funding for climate action distributed on TOs: estimation of distribution of total support for climate action (%) for each Member State <sup>1</sup>									Total
		ERDF	CF	ESF	EAFRD	EMFF	TO 1,2	TO 3	TO 4	TO 5	TO 6	TO 7	TO 8,9,10	TO 11	CLLD	
EU28	25.1	19.8	28.8	1.4	57.1	17.7	1.5	0.7	34.3	6.5	42.4	9.7	1.2	0.1	3.6	100
AT	60.4	24.3		1.7	72.1	10.0			8.0	>0	86.0		0.5		5.4	100
BE	21.0	22.2		1.5	52.6	22.3	2.5		47.3	1.2	42.7		2.5		3.8	100
BG	26.4	26.7	15.9	1.5	55.0	13.5	0.5		38.9	2.6	38.5	10.0	0.6	0.1	8.7	100
CY	22.0	8.1	31.4	>0	59.4	26.8			33.3	5.7	39.3	21.7	>0	>0	0.0	100
CZ	23.1	19.1	30.2	0.1	67.1	4.1	1.9		39.4	2.3	33.2	22.3	0.1		0.8	100
DE	32.9	28.6		2.2	64.0	25.8	2.1	0.5	29.0	5.9	51.3		1.7		9.4	100
DK	45.8	26.9		0.0	78.6	12.1	2.1		16.6		78.1				3.2	100
EE	21.3	9.1	39.0	0.0	41.3	17.1	16.0		31.6	3.3	37.4	8.1			3.6	100
EL	25.9	20.6	14.9	0.0	66.3	19.3	1.4	0.9	40.5	7.3	43.1	6.8				100
ES	21.9	20.1		0.8	52.0	18.3			43.3	2.6	39.3	9.5	0.6		4.7	100
FI	52.8	26.0		12.3	71.6	28.1	0.4	0.4	11.5		81.5		3.1		3.0	100
FR	37.4	25.9		2.4	66.3	15.1	1.1	0.2	20.5	4.7	66.8	1.2	1.4	>0	4.1	100
HR	20.4	20.4	15.6	0.3	44.7	18.2	1.9	1.5	32.5	13.4	29.7	15.6	0.2		5.4	100
HU	23.0	16.3	40.5		47.9	14.1			48.1	14.7	19.5	14.5	0.4		2.8	100
IE	60.3	21.2			87.1	19.6			16.5	0.6	79.7				3.1	100
IT	23.9	23.0		2.9	47.5	17.5	0.1	1.3	33.3	11.3	38.0	9.4	3.2	0.6	2.9	100
LT	24.6	17.7	42.3		40.0	16.0			3.6	52.1	5.6	25.2	10.4		3.1	100
LU	53.6	39.7		10.6	65.4		0.5		10.6		82.7		2.7		3.6	100
LV	22.4	15.3	30.1	>0	45.5	11.0		0.2	37.1	6.5	37.3	17.2			1.7	100
MT	21.1	17.8	20.6	>0	63.1	19.9			38.3	0.4	47.5	12.3			1.4	100
NL	30.3	24.9		0.1	62.5	20.5			24.2	1.2	71.4		0.1		3.2	100
PL	17.8	15.0	26.1	0.5	39.4	20.2	2.9	0.5	43.3	7.3	20.2	21.8	1.0		2.9	100
PT	20.4	12.1	51.4	3.0	53.4	14.8	4.3	5.1	42.3	8.8	25.8	6.2	3.9	0.3	3.2	100
RO	26.3	24.0	27.2	1.2	44.4	16.9	0.2		38.0	6.7	39.0	11.9	0.8		3.4	100
SE	39.0	24.6		1.1	66.0	21.7	1.8	0.7	13.6		76.3	2.2	0.6		4.9	100
SI	27.2	15.2	46.6	2.6	53.6	12.7	6.5	8.2	24.6	7.9	43.4	6.1	1.7		1.6	100
SK	22.2	22.3	25.7	1.2	49.2	8.3	0.9	0.4	31.3	20.6	25.1	19.3	0.7		1.7	100
UK	34.7	26.3		0.8	79.6	15.1	2.5	0.1	24.4	1.3	68.6	0.9	0.7		1.6	100
ETC	20.6						5.4	1.4	25.1	19.0	31.3	14.6	1.7	1.5		100

NOTES TO TABLE 1-2<sup>(1)</sup>: EMFF is not included (climate allocations are not detailed in the Programme). The table also does not take the TA and pure YEI programmes into account. For EAFRD, Union Priority 3.b (supporting farm risk prevention and management) is categorised under TO5, Union Priority 4 (restoring, preserving and enhancing ecosystems related to agriculture and forestry) is categorised under TO6, and Union Priority 5 (promoting resource efficiency and supporting the shift towards a low-carbon and climate-resilient economy in the agriculture, food and forestry sector) is categorised under TO4. Finally, Union Priority 6b (fostering local development in rural areas) is categorised separately; CLLD would naturally fall into the TO8, TO9, TO10 categories, but each is shown separately here in order to better illustrate the extent of the mainstreaming of climate action in these three TOs.

The table demonstrates that mainstreaming of climate action into ESI Funds has indeed occurred when considering the allocation of support: across funds and across TOs <sup>(24)</sup>. Thus, support for climate action is provided for in all TOs and through all funds when considering the EU as a whole. At the individual Member State level,

Support for climate action in Member States: contribution of the individual funds

Support for climate action is allocated through all funds in all Member States with the exception that eight Member States have not allocated support for climate action under ESF<sup>(25)</sup>. That said, it is noteworthy that some ESF programmes do indeed point to climate action potentials in their SO descriptions, but this is not necessarily accompanied by specific financial allocations.

The above table also includes ERDF funding for the ETC goal and, while it is a relatively small programme, it is worth noting that 20.6 % of its support is for climate action and that almost 20 % (19.0 %) is related to TO5. Compared to the allocations in Member States, only Slovakia has a comparably high allocation for TO5 (20.6 %).

Support for climate action in Member States: contribution of the individual TOs

The table illustrates that, when judged by financial allocations of support, climate action is mainstreamed into TO4 and TO6 in all Member States. The two TOs contribute 34 % and 42 % of the total support for climate action, respectively. In 24 and in 20 Member States climate action is mainstreamed into TO5 and TO7 respectively. In total, these four TOs together account for more than 90 % of the support for climate action. Still, it is also worth noting that in 19 Member States, allocations for climate action is also provided under TO1, and, in 22 Member States, allocations for climate action is made under TO8, TO9 and/or TO10.

Support for climate action in Member States with CF and in Member States with no CF funding

Of the 28 Member States, 15 receive funding from the CF. Comparing these 15 Member States to the remaining 13 wealthier Member States differences can be observed in the way that support for climate action is distributed among TOs. This is shown in the table below:

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<sup>24</sup> When comparing Table 1-2 to the previous table (1-1) on adaptation and mitigation, one observes that the share for TO5 diverts from the share for adaptation. The main reason for this discrepancy is that UP3b is categorised under TO5 and considered to belong to the adaptation and/or mitigation category. This choice is motivated by the supportive nature of UP3b. On the other hand, UP5a is categorised under TO6, but fully counts as adaptation.

<sup>25</sup> All Member States that are covered by CF have allocated support for climate action under CF.

Table 3-3 Distribution of support for climate action for Member States with CF funding and Member States no CF funding (note: CLLD is not included under specific TOs, and hence the individual percentages do not fully add up to 100 %)

Share of support for climate action	TO1	TO2	TO3	TO4	TO5	TO6	TO7	TO8	TO9	TO10	TO11	Total
Member States covered by CF	2.0	>0	1.0	40.7	8.2	29.3	15.2	0.5	0.2	0.2	0.0	100.0
Member States not covered by CF	1.0	>0	0.4	27.2	4.6	57.0	3.6	0.6	0.1	0.8	0.1	100.0

The table demonstrates that:

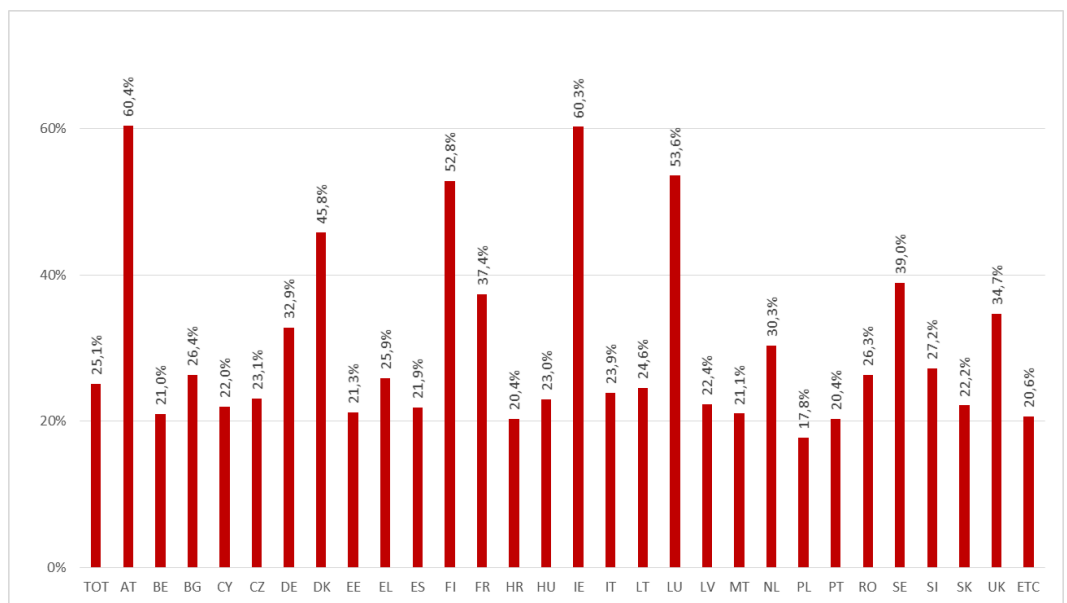
- > **Member States with no CF programmes** overall allocate, in total, almost 60 % of the support for climate action through TO6. This is likely to reflect that these Member States also tend to concentrate to larger extent on climate action in the EAFRD: only in 3 of these 13 Member States is less than 60 % of the allocation for climate action found in EAFRD (Belgium, Spain and Italy).
- > By comparison, in **Member States with CF programmes**, only 30 % of the support for climate action falls under TO6, and in only 3 out of these 15 Member States does more than 60 % of it derive from EAFRD (Czech Republic, Greece and Malta).

When interpreting Table 1-3, one should note that the CF only covers TO4, TO5, TO6, TO7 and TO11 (and within those, fewer IPs than for the ERDF). This puts limitations on an immediate comparison as in Table 1-3. Still, it remains an interesting observation that Member States that do not have CF tend to allocate a higher fraction of EARFD support for climate action than other Member States do.

Total support for climate action in Member States

The below figure illustrates the total support for climate action per Member State.

Figure 3-3 Support for climate action per Member State. Share of support and MEUR allocated for climate action



### 3.3 Key priorities and scope for climate action

Process up to final PA

All PAs focus on climate action. Climate action was already emphasised in the Position Papers that the Commission submitted to Member States in 2012. The Position Papers constituted a background for informal dialogues prior to formal negotiations. Among other things, the Position Papers set out a vision on priorities for funding based on an assessment of challenges and needs. Greenhouse Gas (GHG) emissions reductions, energy efficiency (EE) and renewable energy (RE) have prominent positions in virtually all Position Papers <sup>(26)</sup>, as does climate change adaptation (albeit to a lesser extent). All PAs consider EE, RE and GHG emissions reductions. Key climate-relevant observations of the Position Papers are, in the vast majority of cases, taken into consideration in the PAs. This could be observed in the first versions of the PAs, and further improvements with regard to on-boarding the Position Papers' observations can be observed in the PA revisions.

Role of PAs

The PAs constitute a framework that should aim to, among other things, help streamline across funds and thereby improve on the effectiveness and efficiency of ESI funds spending. Therefore the PAs set out overall needs and opportunities, and define, on that basis, the overall strategy for the use of ESI funds and how it translates into selection of TOs, fund-specific priorities, and TO-specific themes.

TOs in the PAs

This section considers only the PAs. The contents of all the funds-specific programmes are discussed in the following chapters. With very few exceptions, all TOs are selected in all PAs <sup>(27)</sup>. A review of the PAs, with a view to identifying the extent to which climate action is explicitly addressed at the more operational level, shows that there are indeed commonalities in the sense that certain sectors, themes or action types tend to be mentioned in quite a few of the PAs. This goes in particular for TO4, TO5 and TO6. Table 3-4 lists the commonly mentioned climate relevant themes for these three TOs. The table only includes ERDF/CF, EAFRD and EMFF. TO4, TO5 and TO6 do not apply to ESF. ETC is often only covered superficially in the Partnership Agreements.

With regard to TO4, TO5 and TO6, climate action is always explicitly referred to in TO4 and TO5, and the results and priorities of immediate climate relevance are always included in TO6. Regarding TO1, climate action is referred to in more than half of the PAs. In the case of TO3 and TO7, it goes for slightly less than half of the PAs. There is more variation in the themes that are mentioned.

Also, but in less than half the PAs there is an explicit mentioning of the following themes: Forestry (management, afforestation, deforestation, crops); Urban and

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<sup>26</sup> See Mendez, Carlos; Bachtler, John; and Granqvist, Kaisa: 'European Commission perspectives on the 2014-2020 Partnership Agreements & programmes: A comparative review of the Commission's Position Papers', European Policy Research Paper No 84, University of Strathclyde, April 2013.

[http://www.eprc.strath.ac.uk/eprc/documents/PDF\\_files/EPRP\\_84.pdf](http://www.eprc.strath.ac.uk/eprc/documents/PDF_files/EPRP_84.pdf)

<sup>27</sup> However, this is not always reflected in the estimated financial allocations, due to all UP4 allocations under EAFRD being categorised under TO6.

rural spatial planning and infrastructure; ecosystem approaches; water management; and HR and TA assistance for preparedness and response.

Table 3-5 provides an illustration of typical themes mentioned, categorised under the relevant funds.

Considering TO8, TO9 and TO10 combined, climate action is referred to in about ten of the PAs. Table 3-6 provides examples of the themes mentioned.

Climate action is only referred to in a few PAs as it regards TO2 and TO11. For TO2, there is one example mentioning ICT in the field of energy efficiency and for promoting green growth. As for TO11, examples include:

- › Improvement of capacity of integrated local development, also in CO2-related topics
- › Strengthen administrative capacity in energy, environment and themes related to climate action

Across funds, the following observations can be made with regard to climate change mitigation and climate change adaptation:

#### Mitigation in PAs

All PAs formulate priorities that relate to EE, RES and GHG emissions reductions. Reading across the 28 PAs, there are mitigation themes that are observed across virtually all (or at least many) of the PAs when extracting what is identified as main priorities or expected results. The below provides a listing of the key themes and sectors that are often considered explicitly in the PAs:

- › Smart energy supply, smart grids, RE supply including local supply, geothermal energy, EE in domestic heating, combined heat and power (CHP) production, distribution and production of RES and RE.
- › Key sectors often addressed include buildings and enterprises and (to a lesser extent) transport.
- › Agriculture and forestry are often included when addressing mitigation and key themes, including farm practice, energy efficiency in production, local production of RES, carbon sequestration and soil and manure handling,
- › Sustainable urban development, urban planning and sustainable urban mobility
- › Other themes, frequently mentioned explicitly in relation to climate change mitigation (albeit less pronounced than the above) include: a) Research, development and innovation, including improving the link between enterprises/primary sector and knowledge sectors, b) Commercialisation of low-carbon innovation or bio-economy, and c) training and skills, in particular, but not only in relation to, EAFRD.

*Table 3-4 Overview of commonly observed themes for TO4, TO5 and TO6 in PAs*

TO	ERDF/CF	EAFRD	EMFF
TO4	Support RES and energy-efficiency measures in industry, public and residential buildings and SMEs; Smart and low-carbon mobility, including electric mobility; Energy storage, smart grids; Low-carbon strategies for urban areas including clean urban transport networks; R&D in moving to a low-carbon economy, in particular RES and energy efficiency. Bio-economy development with a strong climate-change component	Increase of energy and resource efficiency, climate resilience in agriculture, food and forestry sectors; Sustainable land management; water and soil management; Reducing ammonia and methane emissions from agriculture and increasing CO <sub>2</sub> sequestration from agriculture and forestry; The promotion of RES in the agro-food sector, and generally in rural areas; Sustainable biomass production, establishing biogas installations, conversion to energy crops	Increase of renewable energy use and resource & energy efficiency in fisheries and aquaculture sectors; Improving energy efficiency of fishing vessels and processing units
TO5	Development of national climate-change adaptation strategies; investments for increased adaptive capacity in urban areas; Prevention, risk and disaster management against droughts, floods, forest fires, heat waves, coastal erosion; Development of detection and warning tools, and of public awareness-raising actions; Sectoral actions aimed at increasing disaster resilience	Soil management and prevention of soil degradation (e.g. through crop rotation); prevention of GHG emissions; Sustainable water management and reduced pressure on water resources from irrigation; Decrease of climate-related damage in the agricultural sector; Reforestation of degraded areas due to fires or overgrazing; Forest fire prevention and disaster management; Improved management of risks related to adverse climatic conditions (high temperatures, droughts, flood and coastal erosion) and risk awareness; Increasing adaptation capacity of ecosystems related to agriculture and forestry	Not relevant
TO6	Energy and resource efficiency regarding water and soil management, waste, clean air; Maintenance and restoration of green infrastructure; Sustainable urban development, urban regeneration, clean-up of contaminated sites, rehabilitation of brown-field sites, flood protection; Synergies with TO5 in prevention, risk management and warning systems; maintenance of healthy ecosystems and habitats; safeguard of biodiversity;	Efficient water management and decrease of water-polluting substances, prevention of soil erosion, desertification; Sustainable forest management; increase of forest cover; Promoting organic farming safeguard of biodiversity; recovery, maintenance and improvement of ecosystems that are connected to agriculture and forestry; Fostering carbon sequestration and reducing emissions in agriculture and forestry;	Energy and resource efficiency in fishing and aquaculture; Restoration and conservation of marine and inland water biodiversity; job creation in blue economy sectors;

**Adaptation in PAs**

As regards adaptation themes that are considered explicitly and operationally (i.e. in terms of constituting priorities, objectives or providing expected results), the following are observed in many PAs:

- › Location-specific risks including droughts, water scarcity, flooding, forest fires, extreme heat, coastal and soil erosion, sea level rise;
- › Natura 2000 and biodiversity protection

Also, but in less than half of the PAs there is explicit mentioning of the following themes: Forestry (management, afforestation, deforestation, crops); Urban and rural spatial planning and infrastructure; ecosystem approaches; water management themes; and technical and HR capacity for preparedness and response.

Table 3-5 Examples of themes mentioned for TO1, T03 and TO7 in PAs

TO	ERDF/CF	ERDF	EMFF
TO1	Climate and energy research/ R+D+I in efficient and clean energy; RES, energy efficiency, resource efficiency, sustainable resource management; Development of technologies and products adapted to "new" climate conditions; Development of systems for prevention and management of climate change risks; Support for eco-innovations (particularly in SMEs); Adaptation focused research, and innovation; Agro-food, energy, blue economy, environmental sector; Enhancing ITC use that contributes to a reduction of GHG emissions from transport;	Innovation to stimulate green transition and environmental sustainability; green technologies and green employment in agriculture, forestry and rural areas; Adapting production processes to climate change, soil conservation and natural risks; Reducing energy consumption and sustaining bio-energy production from waste products;	Product development and increase of technological capacity, including introduction of alternative energy and energy-saving technologies
TO3	supporting energy and resource efficiency investments by SMEs; eco-innovation actions in the context of innovation for SMEs; supporting the growth and development of newly created eco-innovative SMEs; increasing climate resilience of SMEs; Public support and PPPs for investments in the development of renewable energies and energy saving;	Increasing the climate resilience of the agriculture sector; Investments for the prevention and management of risks; Reducing energy consumption in farms and promoting organic agriculture; environment and sustainable energy as a cross-cutting priority in supporting agricultural firms; Supporting renewable energy supply chains and forest-wood supply chains among rural enterprises; Linking agriculture and land management practices with climate change issues;	Implementing eco-innovations, energy efficiency and green job creation in SMEs in the fisheries and aquaculture sectors
TO7	Developing low-carbon, multi-modal transport systems; Sustainable urban mobility; efficiency of transport, reduction of congestions, modernisation of railways;	Green jobs from the large-scale energy and sustainable transportation infrastructure project;	Not relevant



Table 3-6 Examples of themes mentioned for TO8, TO9 and TO10 in PAs

TO	ESF	EAFRD	EMFF
TO8	Enhance skills in resource management, natural environment, renewable energy; Green employment creation related to The low-carbon economy and RES coupled with training adaptation/enhancement of labour skills; Incentives in the green growth sectors	Green jobs; Upgrade of skills in energy efficiency, RES and sustainable agricultural practices	Job creation in blue economy sectors; skill improvement in the areas of RES, and energy efficiency for fisheries and SMEs; Skill improvement and training in RES and energy efficiency for fisheries
TO9	Opportunities of employment in green sectors and in energy efficiency and inter alia interventions that promote green growth; Training activities in relation to the green economy, the protection of biodiversity and sustainable development	Green growth as a means to stabilise employment and infrastructure in rural areas	Not relevant
TO10	Supporting education and training activities to develop and adapt qualifications and skills for new jobs in sectors related to the environment, climate, energy, and resource management; Education in relation to sustainable agricultural production, energy efficiency, R&D and the application of technologies using renewable resources	Skill improvement and training in RES and energy efficiency for sustainable agricultural practices; green jobs; Training and consultancy initiatives on climate change mitigation and adaptation themes, renewable energy, water resources management and short supply chains; Agriculture sector capacity strengthening on climate change mitigation and adaptation	Not relevant

Indirect contributions to climate action in the PAs

It must be underlined though that the PAs do not provide hard delineations in terms of detailing eligible sectors or specific themes. The PAs are to be relevant over a seven-year period and are to apply to the whole territory of a particular Member State. However, challenges and opportunities regarding low-carbon and climate-resilient society have a prominent position in all PAs. Further, many PAs have a strong focus on opportunities for growth and jobs in emerging/promising (yet sometimes unspecified) sectors; on competitiveness; and on R&D, including its relation to businesses and commercialisation of innovations. This strategic orientation, together with the emphasis on the challenges and opportunities of the low-carbon and climate-resilient society, are thus factors that strongly enable and facilitate the explicit inclusion of climate-oriented perspectives in programmes and their implementations, even where there is no explicit mention of climate-relevant perspectives when setting out the TO/fund-specific priorities.

## 3.4 Key conclusions

The above analysis points to the following key conclusions:

European Structural and Investment Funds have delivered a strong contribution to the political target of 20 % <sup>(28)</sup>. In total, some 25 % of the support is allocated for climate action.

Climate action has been addressed in the Partnership Agreements at the overall strategic level, including in the assessment of needs and opportunities. The Partnership Agreements identify priorities in relation to energy efficiency, renewable energy and greenhouse gas emissions reductions.

Climate action is largely addressed at the horizontal level, i.e. climate action has been mainstreamed across the Thematic Objectives and not just with a focus on the most immediately relevant Thematic Objectives. The description of climate action is most explicit and operational for Thematic Objectives 4, 5, 6 and 7 (on low-carbon economy; resilience, nature & environment; and transport respectively). A higher level of discrepancy and a generally lower level of operationalisation is observed in particular in regard to Thematic Objectives 3, 8, and 10 (on SMEs; employment; and education respectively), but also for Thematic Objectives 1 and 11 (on innovation and research and on institutional capacity respectively).

Judging from the financial data on support, climate action has been mainstreamed significantly into all funds and Thematic Objectives. Taking the financial allocations as indicative for the strategic approach of the Partnership Agreements, there are important differences and commonalities to observe in the 28 Member States.

**The European Agricultural Fund for Rural Development contributes 57.1 %** of all its support for climate action. It counts for around half of the allocation for climate action under the European Structural and Investment Funds (12.4 % of the total of 25.1 %). In particular, it accounts for a relatively high share in wealthier Member States (i.e. Member States with no Cohesion Fund programmes).

**The European Regional Development Fund is the single largest fund**, and 19.8 % of its total support is marked for climate action. In all the wealthier Member States (i.e. Member States not eligible for funding from the Cohesion Fund), more than 20 % of the support is allocated for climate action. The highest allocation is observed in Luxembourg (39.7 %).

**Funding from the Cohesion Fund is climate-relevant.** All Member States where the Cohesion Fund applies have allocated funds for climate action under it. Overall, the Cohesion Fund allocates 28.8 % of the support for climate action. In only three countries do the allocations for climate action fall below 20 % of total support from the Cohesion Fund: Bulgaria (15.9 %), Greece (14.9 %) and Croatia (15.6 %). The European Agricultural Fund for Rural Development is the only fund that provides a

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<sup>28</sup> This section does not derive further conclusions on the basis of the financial data of the PA. In this chapter, the financial assessment has been made solely through compiling information from the approved programmes.

higher relative contribution to climate action. In four Member States, the Cohesion Fund contributes more than 40 % of the total allocation for climate action: Hungary (40.5 %), Lithuania (42.3 %), Portugal (51.4 %) and Slovakia (46.6 %). The Cohesion Fund only covers Thematic Objectives 4, 5, 6, 7 and 11. These Thematic Objectives are typically those that include Investment Priorities and Intervention Fields with much scope for climate action.

In relation to the above conclusions on the European Regional Development Fund and the Cohesion Fund, it is important to be aware that, in Member States that are covered by the Cohesion fund, the use of resources from these two funds should ideally be seen in combination. The Cohesion Fund has a narrower scope in terms of Thematic Objectives and Investment Priorities covered, but within that scope, similar investments can be supported by both funds.

**The European Social Fund provides modest allocations** for climate action, but in a few Member States, it exceeds 10 %: Finland (12.3 %) and Luxembourg (10.6 %). This is also reflected in Thematic Objectives 8, 9 and 10 (employment & labour mobility, social cohesion & discrimination, education & training respectively) having a relatively high share (3.1 % and 3.2 %) of the Member State's total allocation for climate action. Only in Portugal do these three Thematic Objectives also account for more than 3 % of the total support for climate action (they account for 3.9 %).

**The European Maritime and Fisheries Fund contributes 17.7 % of its support for climate action.** It is a relatively small fund, and three Member States allocate more than 25 % of the support from this fund for climate action: Cyprus, Denmark, and Finland.

**The European Territorial Cooperation Goal** under the European Regional Development allocates a substantial share of support for climate action **for TO5**. Support provided under the Goal is relatively modest. However, it contributes 20.6 % of its support for climate action, and it is worth noting that as much as 19 % of this amount is allocated for Thematic Objective 5 (promoting climate change adaptation, risk prevention and management).

**Support for climate action is allocated for Thematic Objectives 4 and 6 in all Member States**, totalling a share of total support for climate action of 76.7 % for low-carbon economy and for nature & environment respectively. In wealthier Member States, the share is 90.3 %, and the largest contribution comes from Thematic Objective 6 (59.8 % compared to 28.5 % for Thematic Objective 4). In the other Member States, the total share for these two Thematic Objectives is 71.9 % and Thematic Objective 4 is the main contributor (counting for 41.8 %) whereas Thematic Objective 6 accounts for only 30.1 %.

**24 Member States have mainstreamed climate action into Thematic Objective 5** (on climate change adaptation, risk prevention and management), totalling a share of total support for climate action of 6.5 %. Again, the share is higher in the

less wealthy Member States (those with Cohesion Fund programmes): 8.4 % compared to 5.8 % <sup>(29)</sup>.

**20 Member States have mainstreamed climate action into Thematic Objective 7** (on transport), and this Thematic Objective plays a relatively more important role in the less-wealthy Member States (those eligible for support from the Cohesion Fund), accounting for 15.2 % of total support for climate action, compared to 3.6 % in the other Member States in total.

**Climate action has also been mainstreamed into other Thematic Objectives.**

The shares allocated for climate action are relatively modest in the remaining TOs. Still, it is worth noting that climate action is reflected in allocations in 19 Member States for Thematic Objective 1 (on research, technological development and innovation), in 14 Member States for Thematic Objective 3 (on SMEs), and in 22 Member States for Thematic Objectives 8, 9 and/or 10 (on employment & labour mobility, social inclusion & discrimination and education & training respectively). Only in very few cases (five or less) has climate action been mainstreamed into Thematic Objectives 2 and 11 (on ICT and on institutional capacity, respectively). In total, these five Thematic Objectives contribute 3.5 % of total support for climate action. Additionally, Community-led Local development accounts for 3.6 % of total support for climate action from European Structural and Investment Funds.

The assignment of allocations for climate action takes place through the common methodology. It is used at programme level. The common methodology has strong merit, in that it provides a mechanical, transparent and comparable way of calculating support for climate action. However, the downside is that there is not always a clear relationship between the specific contents of the programme (e.g. its descriptions under the selected Investment Priorities, Specific Objectives, Focus Areas and/or measures). These descriptions are framed in the context of the specific challenges and needs of the Member State/region as they are set out in the programme in question and of the assigned support for climate action. Further, the assignment of support for climate action to Thematic Objectives has been assessed at the programme level and added up for presentation in this chapter <sup>(30)</sup>.

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<sup>29</sup> In this regard, it should be mentioned that two IFs are of particular relevance here: IF087 and IF088. IF087 counts 100% as contributing to climate action whereas IF088 counts 0%. The former is concerned with investments to address climate change adaptation and climate-related risks, whereas the latter is concerned with investments towards non-climate-related risks and man-made risks. The 61 programmes that have Priority Axes with IF087 and not IF088 were carefully scrutinized. This scrutiny has aimed to assess whether there is a significant number of cases wherein funds allocated for IF087 are also indicated to support areas that would more rightly be covered by IF088. Overall, it can be concluded that in the majority of those programmes, there is a good alignment between the allocation made for IF087 and the contents of the Priority Axis in question. In a few (3) cases though, there is an explicit mention of themes that would not fall under IF087: serious accidents, earthquakes, and asbestos, and in a few others (5), the reference to climate change is weak.

<sup>30</sup> The assessment suffers in that: a) Priority Axes may address several Thematic Objectives, but support is always allocated per Priority Axis, and b) the Thematic Objectives

This chapter has thus illustrated that – within the given regulatory framework and possibly with the push from the political target of at least 20 % of the Multiannual Financial Framework for climate action – climate action has indeed been mainstreamed into programmes and Partnership Agreements: This applies to all Member States, across all Funds and across all Thematic Objectives.

While the assessment of the achievements of Partnership Agreements and programmes is the core of this study, the analysis also points to some forward-looking issues that could be worth reflecting on. These are summarised below:

**On EU stimulus to enhance readiness of Member States and Managing Authorities:** While this analysis has not involved an analysis per se of the readiness of Member States to on-board and mainstream climate action, it nevertheless points to certain Commission actions of importance to stimulate readiness. One factor relates to the timeliness of regulation. Partnership Agreements were a novelty of the 2014-2020 period. However, and largely due to delays in completing the regulatory framework, the basis for the Partnership Agreements long remained uncertain, for example with regard to how allocations for climate action would be calculated in the programmes, the electronic means and structure by which to submit the Agreement and the funding available. Hence, the full potential of the Partnership Agreements in terms of providing the overall umbrella for the programming in Member States (including with regard to effectively and efficiently addressing climate action) may not have been utilised. Further, while the 20 % is a political target - expressed by the Council and supported by the Parliament - at the level of the overall Multiannual Financial Framework, it does appear that Managing Authorities have been largely influenced by this target. Hence, the political target of 20 % is likely to have provided an important stimulus to 'readiness' of Member States. It may thus also be of value for the next programming period to have a political target of a similar nature.

**On programme implementation:** Judged by the programmes, some 25 % of funding will be allocated for climate action. The realisation of this intention will be effectuated through the implementation of the programmes. In reality, programmes may come to deliver in excess or below the 25 % (and in excess or below their specific indicated share). This uncertainty is underpinned by it that there are cases where the financial allocations for climate action are not accompanied by result and output indicators that relate specifically to climate action and/or where the principles for selection do not explicitly consider climate action. This is frequently, but not exclusively, observed in relation to Thematic Objectives 1, 8, 9 and 10 (in research & innovation, employment & labour mobility, social cohesion & discrimination and education & training respectively). While this is not a requirement either, it nevertheless points to the relevance of carefully monitoring the implementation of the programmes. This is further elaborated on below.

**On monitoring and evaluation:** Monitoring, possibly supplemented with targeted evaluation during implementation, can provide valuable insights that can be of

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are translated into Union Priorities and Focus Areas for the European Agricultural Fund for Rural Development. Both of these characteristics imply that there is, inevitably, some uncertainty inherent in the estimates provided in this and the following chapters.

value when scoping the next programming period. It can inform on the adequacy of the climate markers and to what extent they capture factual contributions to climate change mitigation and adaptation. It can also inform on whether, and in what cases, the climate-oriented aspirations of a programme are fulfilled and help to detect systematic positive or negative deviations in this regard, as well as help identify good practices of wider relevance. As explained in the funds-specific chapters, programmes have, in particular with regard to Thematic Objectives, Investment Priorities and Focus Areas whose contributions to climate to climate action is indirect, often not been very specific and often not set concrete indicators or milestones for the relevant climate change objectives and actions. In such cases, it will be difficult to monitor the progress of the Member State vis-à-vis for example the Annual Implementation Reports <sup>(31)</sup> and the interesting themes and observations may not be captured in the evaluation reports <sup>(32)</sup>. Depending on the outcome and progress of the first round of reporting, it may thus be relevant to consider options for how to ensure more targeted actions and appropriate indicators in the future, e.g. through additional guidance to Member States or through enhanced coordination with the parallel country-specific recommendations relevant for climate action.

Another factor relates to **the options for adding further value to guidance material**. If the implementation of programmes is followed closer (possibly with a focus on few selected ones) with a view to assessing their actual deliverance on climate action, the results of this exercise can feed into developing such example-based good practices. Further, ex-ante evaluations and Strategic Environmental Assessments enter the programming cycle at a very early stage (during preparation) and hence, revising the guidance on those based on such actual good experience could help to strengthen the focus on climate action at this early stage.

**On climate markers:** The calculation of the financial support for climate action is determined by how support is categorised according to Intervention Fields <sup>(33)</sup> (climate markers). The markers are very elaborate for the European Regional Development Fund, the Cohesion Fund and the European Social Fund, where 120 distinct Intervention Fields (and 3 for Technical Assistance) are identified. Each of those is assigned a marker of 0 %, 40 % or 100 %. For the European Agricultural

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<sup>31</sup> Commission Implementing Regulation (EU) 2015/207 of 20 January 2015 laying down detailed rules implementing Regulation (EU) No 1303/2013 of the European Parliament and of the Council as regards the models for the progress reports

<sup>32</sup> Member States will report on progress and contribution of the funds towards the selected Thematic Objectives in accordance with the milestones in the performance framework for each programme, and on the support for climate change objectives. Member States will also have to report on how changes in the development needs have been addressed, and how the ESI Funds respond to new relevant country-specific recommendations. Also, reporting should be made on the actions taken in relation to the horizontal principles on sustainable development (including climate change mitigation and adaptation) and the arrangements implemented to ensure mainstreaming of horizontal policy objectives

<sup>33</sup> The term Intervention Field applies to ERDF/CF/ESF funding. As regards EAFRD and EMFF, the markers are defined by Union Priority/Focus Area and by measure (defined by Article number) respectively. For the sake of simplicity however, this chapter uses the term 'Intervention Field' as an expression for all markers.

Fund for Rural Development, the markers are less detailed: Here they are defined at the level of Union Priority/Focus Area only, and all that falls within Union Priority 4 and 5 (on agricultural & forest ecosystems and on efficient use of resources and low-carbon economy respectively) is assigned a marker of 100 %. Detailing the rural development markers more will inevitably be a complex exercise, but it would provide for a higher level of alignment across the funds, and it would also provide for a more comparable level of accuracy when estimating the financial allocations for climate action in rural development and under the other funds.

**On climate change adaptation and climate change mitigation:** This study has attempted to estimate the financial allocations for climate change adaptation and for climate change mitigation. Many intervention fields can clearly be categorised as adaptation or mitigation, while it is more uncertain for others. The uncertainty relates to three factors: a) in some cases there is a marker of 100 %, but other (e.g. external or contextual) factors can imply that less than the 100 % of the funding actually contributes to climate action, b) for the European Agricultural Fund for Rural Development, the flexibility inherent in the regulation implies that the actual contribution to climate action is, for all measures, determined by how the Focus Area is scoped in the programme rather than the measure itself, and c) some Intervention Fields and Focus Areas actually have the potential of delivering on adaptation as well as on mitigation. Carefully monitoring and following the implementation of the programmes can provide valuable inputs to a more detailed analysis of a) and b) above, with a view to revisiting the marker categories, measures and associated values in the future. With regard to c), it may be considered for the next programming period to introduce labelling on climate markers, whereby it is indicated whether a specific Intervention Field, Focus Area or measure is seen as contributing to climate change adaptation, climate change mitigation or has the potential of supporting both.

## 4 European Regional Development Fund and Cohesion Fund

TOs covered by ERDF and CF	The European Regional Development Fund (ERDF) supports all Thematic Objectives (TOs). The Cohesion Fund (CF) supports TO4, TO5, TO6, TO7 and TO11. Figure 2-1 lists the 11 Thematic Objectives.
Ring-fencing of TO4: ERDF	<p>Article 4 ('Thematic concentration') of the ERDF Regulation (No 1301/2013) requires that, out of the total ERDF resources at the national level:</p> <ul style="list-style-type: none"> <li>› At least 80 % shall be allocated to two or more of the TOs concerning research and innovation (TO1), SMEs (TO3) and the shift to a low-carbon economy (TO4) in <b>more developed regions</b>. At least 20 % shall be allocated to TO4.</li> </ul> <p>The corresponding required thematic concentration in other regions amounts to:</p> <ul style="list-style-type: none"> <li>› At least 60 % for two or more of TO1, TO3 and TO4 in <b>transition regions</b>, and 15 % should be allocated to TO4.</li> <li>› At least 50 % in total for two or more of TO1, TO3 and TO4 in <b>less developed regions</b>, and 12 % should be allocated to TO4. (This is increased to 15 % when CF resources are also allocated towards achieving these shares.)</li> </ul>
Structure of this chapter	This chapter first provides an overview of the allocations of support in ERDF and Cohesion Fund (CF) OPs. Thus, it investigates the contribution of the ERDF/CF to the overall support for climate action from the European Structural and Investment Funds (ESIF). This is followed by a more detailed assessment of how climate actions have been included in the ERDF and CF OPs.
Number of OPs	The assessment is based on the following number and types of approved Operational Programmes (OPs):

Table 4-1 Number of Operational Programmes, types and total

Type of OP	Number of OPs
CF	3
ERDF	107
ERDF+CF	14
ERDF+CF+ESF	4
ERDF+CF+ESF+YEI	3
ERDF+ESF	70
ERDF+ESF+YEI	15
<b>Total ERDF and CF</b>	<b>216</b>

OPs can be prepared that combine ERDF and/or CF with the European Social Fund (ESF), i.e. 'multi-fund' OPs. There are 92 multi-fund OPs. Multi-fund OPs have the potential to strengthen synergies between the ERDF/CF and ESF. The



following split is observed in terms of the lead European Commission Directorate General (DG) responsible for the adoption and monitoring of the implementation of the OPs:

*Table 4-2 Number of multi-fund OPs categorised according to lead DG*

Lead DG	Number of ERDF/CF and ESF multi-fund OPs
DG EMPL	11
DG REGIO	81

**Multi-fund OPs**

A comparison of multi-fund OPs to other ERDF/CF OPs show that there are no such significant differences across OPs. The selection of TOs and the financial allocations for climate exhibit more or less the same picture, irrespective of whether it is a single- or a multi-fund OP.

**CF compared to ERDF**

However, when comparing ERDF OPs to CF OPs, there are significant differences. For example, the relative CF contribution to climate action is higher than the ERDF contribution (see Table 3-1). Hence, the following sections provide – where relevant - separate analyses of ERDF and CF <sup>(34)</sup>. The observed differences are likely to be influenced by the fact that CF only covers TO4, TO5, TO6, TO7 and TO11 (the former four generally being the TOs of most immediate climate relevance).

## 4.1 Overview of allocation of support

**Support for climate action in ERDF and CF**

In total, support under ERDF and CF amount to EUR 250.9 billion including Technical Assistance (TA) <sup>(35)</sup>, and 21.3 % of this amount (EUR 53.4 billion) has been designated for climate action.

The CF assigns a higher share of its support for climate action, while the absolute contribution from ERDF is the highest.

<sup>34</sup> While it is not important whether a Member State allocates under EFDF or CF, it is relevant given that not all Member States are eligible for support under CF.

<sup>35</sup> The total support includes TA: the TA support has been allocated to the funds in proportion to the total support from these fund in the programmes.

Table 4-3 Allocation for climate action in the ERDF and CF: MEUR and shares of funds-specific support and of total ESIF support respectively

	Support for climate action; MEUR	Support for climate action as a percentage of total support in the fund including TA	Support for climate action, percentage of total ESIF support
ERDF	35,779	19,1	7.9
CF	17,643	27.8	3.9
ERDF+CF	53,422	21.3	11.8

Observed improvements

When comparing the first official versions <sup>(36)</sup> of the OPs to the approved versions, it is observed that the share of support allocated for climate action has increased. The observed increase is in the order of 3 percentage points. In addition to this overall increase in the share of support marked for climate action, improvements can be observed with regard to the programmes’ strategies, proposed actions and selection criteria, as described in further detail in section 4.3 below. The observed improvements were facilitated through the Inter-Service Consultation (ISC) process. In that process, climate-relevant observations were made by the Commission. Many were communicated to Member States and largely taken on board in the revised versions of the OPs. Additionally, the informal dialogue with Member States that preceded the ISC process, e.g. in the form of Commission Position Papers and the issuance of guidance documents by the Commission, contributed to enhancing awareness of the issue of mainstreaming of climate action; and thus to ensuring that an effort to mainstream climate action could already be observed when the first version of the OPs was submitted.

## 4.2 Breakdown of support for climate action

Support by TO

Table 4-4 presents the distribution of the intended support for climate action by TO. The TOs of direct relevance to climate action in ERDF and CF are TO4, “Supporting the shift towards a low-carbon economy in all sectors” and TO5, “Promoting climate change adaptation and risk prevention and management”.

In ERDF, TO4 is the single most important TO for climate action. As much as 68 % of the total support for climate action of ERDF is found within TO4. Another 10 % is provided through TO7, followed by TO5 (8 %) and TO6 (6 %). For CF, the split differs. TO7 is the single most important TO: It provides around 40 % of the total CF support for climate action, followed by TO4 (34 %), TO5 (18 %) and TO6 (9 %). Transport infrastructure – in particular supporting TEN-T – is a focus area for CF, which is one factor explaining TO7 having the largest allocation.

<sup>36</sup> The OP that was subject to the first ISC of the Commission

Table 4-4 Estimated allocation for climate action by TO for ERDF and CF, MEUR

Support per TO (billion EUR)	TO1	TO2	TO3	TO4	TO5	TO6	TO7	TO8	TO9	TO10	TO11	Total
Support for climate action ERDF	1.6	0.005	0.8	24.4	3.0	2.0	3.7	0.03	0.1	0.1		<b>35.8</b>
Support for climate action CF				6.0	3.1	1.5	7.0					<b>17.6</b>
Support for climate action	1.6	0.005	0.8	30.3	6.1	3.5	10.7	0.03	0.1	0.1		<b>53.4</b>
Total support	<b>39.3</b>	<b>13.2</b>	<b>31.9</b>	<b>39.1</b>	<b>7.5</b>	<b>32.6</b>	<b>57.7</b>	<b>2.9</b>	<b>11.4</b>	<b>6.1</b>	<b>0.9</b>	<b>242.4</b>

Thematic categorisation of IFs

Looking at which Intervention Fields (IFs) have been selected for support under ERDF/CF can provide further insight on the intentions for how climate action will be supported by the OPs (See chapter 3.2.2 for an explanation of the IFs). In the below table, the different climate relevant IFs have been grouped thematically. Thus, for example, all IFs that support renewable energy are put together into one group. Based on these categories the distribution of the allocation under ERDF and CF are illustrated in Figure 4-1.

Contribution to EU challenges

While programmes need to be seen in the specific regional and national context and in the light of how other types of funding is prioritised, the allocations nevertheless are in line with the identified EU needs in relation to the transition to the low-carbon economy <sup>(37)</sup>. Improving energy efficiency in buildings is an important principle of the Energy Union. Buildings account for 40 % of the energy consumption in EU. Similarly, the transport sector accounts for 25 % of the GHG emissions in the EU. The ERDF and CF are well suited to provide support in the transition of to a more sustainable transport sector. Renewable energy is also very important for the 2020 objectives, and investments in renewable energy do count for a significant, yet lower share of the ERDF/CF support for climate action possibly influenced by the ability to raise finance for this also in the energy markets.

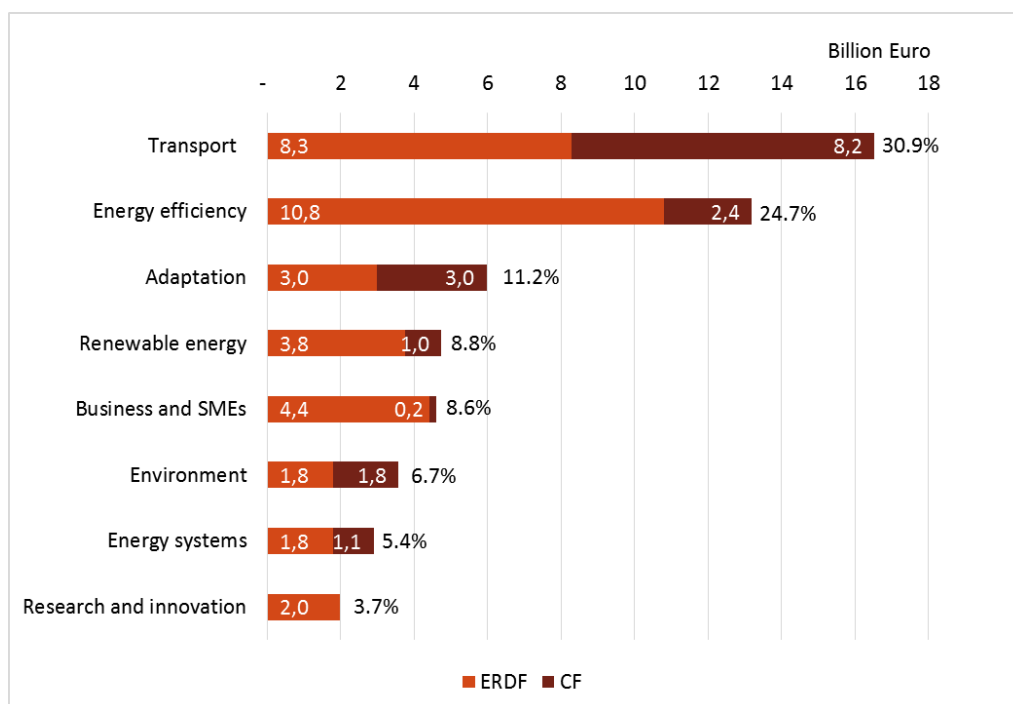
For ERDF, the largest contribution is to energy efficiency, with 30 % of the total support for climate action in ERDF. The second largest is for actions related to sustainable transport, including support to metros and rail transport. The third largest category is support to adaptation, accounting for a little more than 10 %. Fourth with about 9 % are allocations for renewable energy.

<sup>37</sup> See for example the note from the Council of the European Union on contribution of ESIF to the shift to a low-carbon economy. <http://data.consilium.europa.eu/doc/document/ST-13701-2015-INIT/en/pdf>

Table 4-5 Thematic categorisation of IFs for climate action in the ERDF and CF

Category	IF numbers <sup>(38)</sup>	Scope of actions
Energy efficiency	13, 14, 54	Include energy efficiency in public infrastructure (often schools, hospitals) and in existing housing stock
Renewable	09,10, 11, 12	Investments to support renewable energy
Transport	24, 25, 26, 27, 34, 35, 36, 39, 40, 41, 42, 43, 44, 90	Support to multimodal transport, to rail transport and to cycle infrastructure
Energy systems	5, 6, 7, 15, 16	Smart distribution, high-efficiency cogeneration and district heating
Adaptation	87, 100	Support to adaptation to climate change
Research and	56, 60, 64, 65	Support to research and innovation activities
Business and SMEs	1, 3, 63, 68, 69, 70, 71	Support to industry and business, large or SMEs
Environment	21, 23, 83, 84, 85, 86, 88, 89	Support environmental infrastructure with climate action potential

Figure 4-1 Distribution of support for climate action in ERDF and CF per thematic category, MEUR and percentage share



<sup>38</sup> Some IF have a climate marker of 0% for climate action unless they reported under TO4 or TO5, in which case they have the climate marker of 40% for climate action.

For the combined ERDF and CF allocations, support to transport actions comprise as much as one-third of the support for climate actions in ERDF and CF. This is followed by energy efficiency actions that account for one-quarter of the total climate action support. For CF alone, the support to transport sector actions comprises the largest share of the funds allocated for climate action. Almost half of the support to climate action in CF is for transport-related actions, including railways and clean urban transport. Adaptation is the second largest group with 17 % of the total expenditure for climate action.

Judged by financial allocations, energy efficiency improvements and more sustainable transport are by far the most important themes. The energy efficiency IFs all have a climate marker of 100 %. This means that support categorised under these IFs counts fully as climate action. Energy efficiency in buildings is achieved through the renovation of the buildings, which could in principle provide other benefits than improved energy efficiency. Consulting the descriptions of the actions included in the OPs of the relevant Priority axes however indicates that the allocations for energy efficiency in public infrastructure (including public buildings such as schools and hospitals) and in existing housing stock do in fact appear to focus on specific energy efficiency improvement and not so much on general renovation of buildings. For the transport actions, most of the IFs carry a marker of 40 %, i.e. 40% of the allocated support counts towards climate action. The extent to which they will eventually deliver proportionally on climate action depend to some extent on other factors. For example, support to rail transport (including urban metros and trams) has the potential for providing reduced GHG emissions. This however assumes that a modal shift takes place from road rail transport and/or that the carbon efficiency of transport is significantly improved or changed for RES-based fuels. These factors point to a need for close monitoring of the actual actions and projects supported to follow whether they will achieve reductions in GHG emissions from the transport sector.

Individual IFs in  
ERDF and CF

Figure 4.2 and Figure 4-3 provides a more detailed look into the specific IFs. They show the ten IFs with the highest total support for climate action in ERDF and CF.

Figure 4-2 Top 10 intervention fields for climate action support in ERDF, MEUR allocated for climate action and percentage distribution

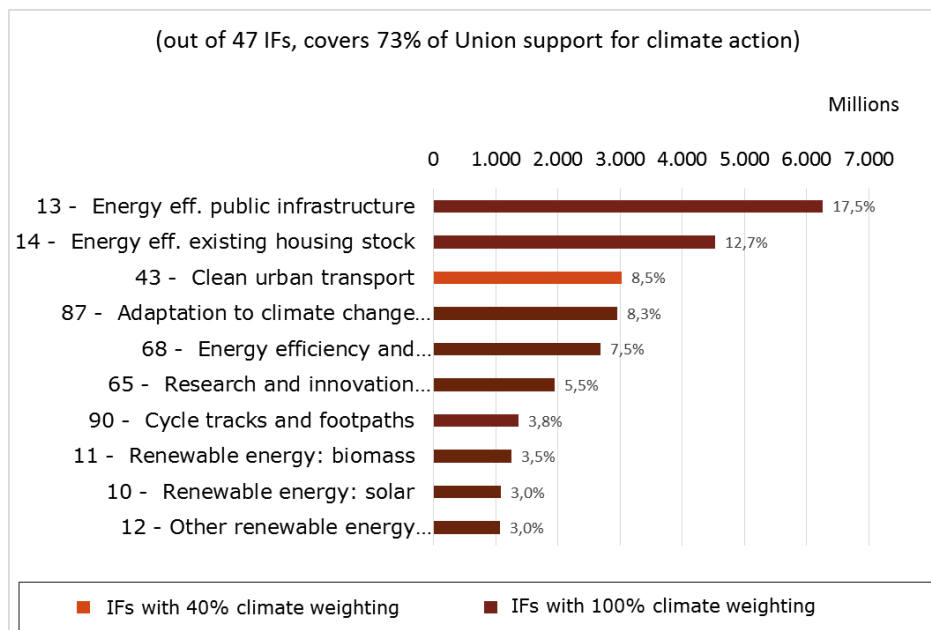
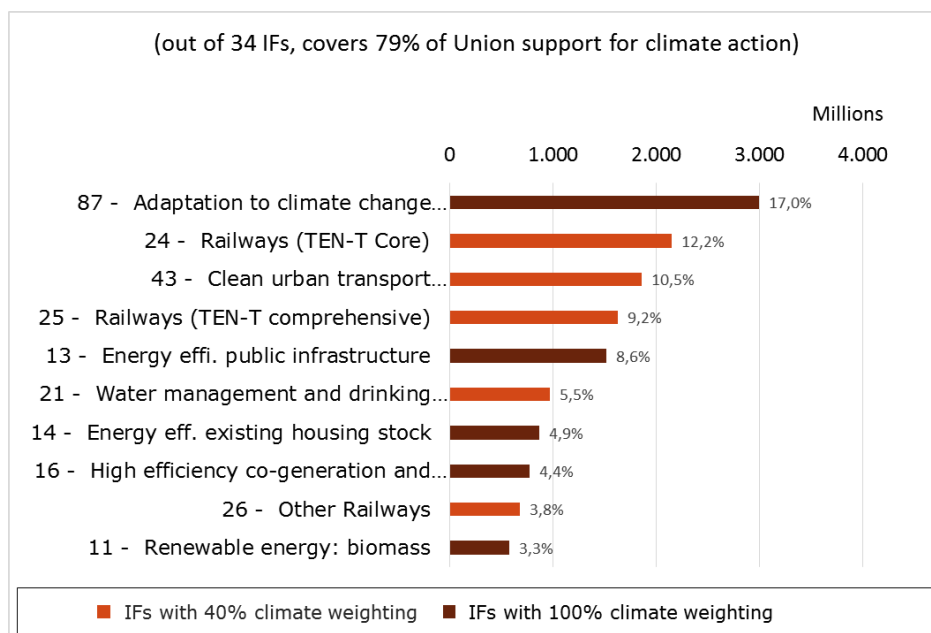


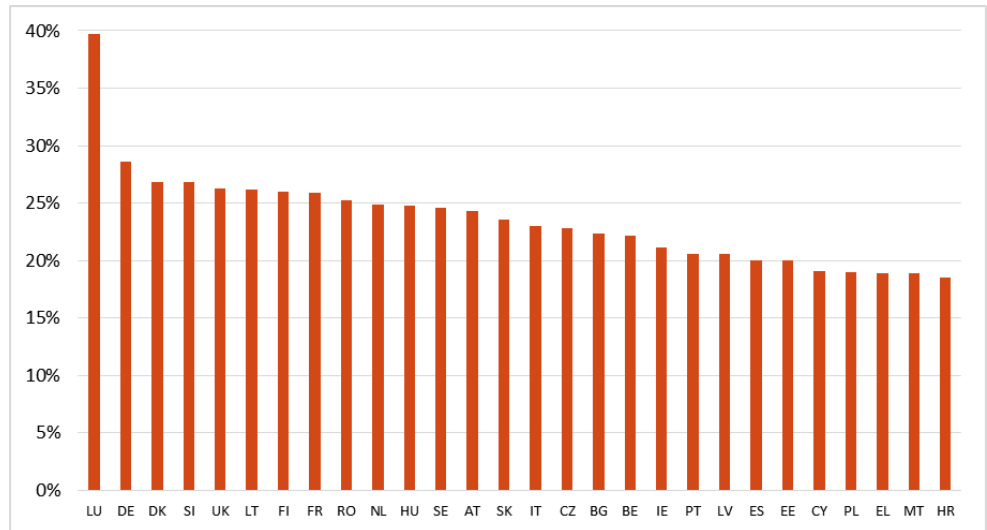
Figure 4-3 Top 10 intervention fields for support for climate action in CF, MEUR allocated for climate action and percentage distribution



Climate action in ERDF/CF: A Member State perspective

Figure 4-4 shows the share of total ERDF/CF support that is allocated for climate action at the MS level. In one Member State, almost 40 % of the ERDF/CF support is marked for climate action. The shares in the remaining 27 Member States range between just below 18.5 % and up to 28.6 % (see Table 4-6 for details).

Figure 4-4 Climate action support in percentage of total ERDF/CF by Member State level



Allocations over TOs at Member State level

As shown in Table 4-6, all Member States have support allocated for TO4. This may partly be explained or have been encouraged by the thematic concentration requirements (see above), 70 % of the Member States have allocations for TO5. The allocations for climate action by TO vary across Member States. In some Member States, the allocation for climate action is concentrated on a limited number of TOs, while in other Member States support for climate action spreads across more TOs. The specific percentages are shown for the TOs that contribute the most to climate action at the EU28 level. Thus, the table adds together TO2, TO8, TO9, TO10 and TO11. Typically, no or very limited allocations for climate action are provided for in these TOs. However, positive allocations are still provided in eight Member States. These allocations include, for example, support to community-led local development strategies with a focus on adaptation or increasing renewable energy.

It is interesting to look closer at TO1, which supports research and innovation: it is the second largest TO under ERDF/CF in terms of the total support (see Table 4-4). TO1 is important for the achievement of smart growth objectives, and it has the potential to deliver an indirect contribution to climate action. Research and innovation related to climate change and the transition to a low-carbon economy can also be part of TO4.

All Member States have selected TO1. 17 Member States have support for climate action in TO1, and some of those Member States have also made climate relevant allocations for research and innovation under TO4, though much less. Additionally, three Member States have only allocated for research and innovation under TO4 (i.e. no climate allocations under TO1). In total, 20 Member States have some allocation for research and innovation related to climate action while there are still eight Member States with no allocations for research and innovation that focuses on climate change – when judged by the financial allocations.

Table 4-6 Member State allocations for climate action in ERDF and CF, MEUR and estimated allocations distributed over TOs

MS	Number of OPs	Total support for climate action (MEUR)			Allocation of support for climate action distributed over TOs for ERDF/CF (% of support to climate action by Member State)*						
		Total	ERDF	CF	TO1	TO3	TO4	TO5	TO6	TO7	Other TOs
AT	1	125	125	-	-	-	93.1	-	0.6	-	6.3
BE	3	205	205	-	6.7	-	81.3	2.7	9.2	-	-
BG	5	1,271	909	362	1.1	-	53.1	5.3	20.3	20.3	-
CY	1	103	23	80	-	-	43.6	9.7	9.7	37.0	-
CZ	7	3,991	2,213	1,778	2.6	-	54.2	3.2	9.0	31.0	-
DE	16	2,968	2,968	-	6.5	1.5	74.1	13.7	4.2	-	-
DK	1	53	53	-	21.7	-	78.3	-	-	-	-
EE	1	568	165	403	25.6	-	47.0	5.3	9.2	12.9	-
EL	17	2,077	1,613	464	-	-	52.3	17.0	8.9	16.5	0.1
ES	22	3,600	3,600	-	-	-	68.8	-	-	-	>0
FI	2	199	199	-	4.4	4.2	91.4	-	-	-	-
FR	34	2,083	2,083	-	4.8	1.0	71.2	10.0	7.2	5.5	0.2
HR	1	1,230	831	399	3.3	2.5	42.7	18.5	6.0	27.1	-
HU	7	4,112	1,750	2,363	-	-	55.4	19.7	4.2	20.3	0.5
IE	2	86	86	-	-	-	100.0	-	-	-	-
IT	29	4,586	4,586	-	0.2	2.7	55.1	16.8	2.9	20.2	2.1
LT	1	1,405	619	787	-	5.2	65.8	7.7	6.1	15.1	-
LU	1	7	7	-	5.0	-	95.0	-	-	-	-
LV	1	755	361	394	-	0.3	54.5	10.1	6.7	28.4	-
MT	2	108	63	45	-	-	42.5	-	38.1	19.3	-
NL	4	121	121	-	-	-	100.0	-	-	-	-
PL	21	11,751	5,961	5,791	3.8	0.7	54.4	8.5	3.6	28.1	0.8
PT	10	2,691	1,247	1,444	8.1	9.7	48.9	15.7	6.0	11.6	-
RO	4	4,433	2,544	1,889	0.3	-	49.7	10.7	17.3	21.8	0.2
SE	10	223	223	-	11.2	4.4	70.8	-	-	13.5	-
SI	1	584	209	375	11.7	14.8	44.3	14.2	4.1	10.9	-
SK	6	2,613	1,543	1,070	1.1	0.5	40.2	26.0	7.2	25.0	-
UK	6	1,479	1,479	0	9.6	0.4	76.9	4.7	5.0	3.4	-
<b>TOT</b>	<b>216</b>	<b>53,431</b>	<b>35,788</b>	<b>17,643</b>	<b>3</b>	<b>2</b>	<b>57</b>	<b>11</b>	<b>7</b>	<b>20</b>	<b>0.4</b>

Note: \* Each Member State add to 100 %

Allocations in OPs for TO1

The above applied a Member State perspective. Looking at individual OPs instead, about one-third of the OPs that have selected TO1 have some – often modest – allocation for climate action in TO1. Thus, there are quite a few OPs with TO1, but with no allocation for research and innovation related to climate action under TO1 - or under any other TOs for that matter.



All Member States deliver on the required thematic concentration (explained in the introduction to this chapter) regarding both the requirement for TO1, TO3 and TO4 in total, as well as the requirements applying specifically to TO4 <sup>(39)</sup>.

### 4.3 Climate action in ERDF and CF

This section looks into how the OPs have mainstreamed climate action in their strategies, describes what specific actions are typically included in the OPs, and sets out what principle will guide the selection of actions.

Support for adaptation and for mitigation

The categorisation of support into IFs provides a good basis for assessing allocations for climate change adaptation and for climate change mitigation, respectively. The table below provides the results of such an assessment. The category in the last column covers IFs that can address actions which can contribute to climate change adaptation and/or climate change mitigation (cf. the introduction chapter on the underlying methodology).

*Table 4-7 Estimated ERDF and CF allocations for mitigation, adaptation, and actions that may support both, MEUR*

	Total Union support (MEUR)	Total support for climate action (MEUR)	Of which for mitigation (MEUR)	Of which for adaptation (MEUR)	Of which for mitigation and/or adaptation (MEUR)
ERDF	181,098	35,779	29,729	2,971	3,079
CF	61,256	17,643	13,394	2,998	1,251
<b>Total</b>	<b>242,354</b>	<b>53,422</b>	<b>43,123</b>	<b>5,969</b>	<b>4,330</b>

Climate change adaptation

Support for climate change adaptation is mainly provided through TO5. The total allocation for climate change adaptation is almost EUR 6 billion, corresponding to 11 % of the ERDF and CF support for climate action and 2.5 % of the total ERDF and CF support. Out of this, 98 % derives from TO5, 0.5 % from TO6 and 0.1 % from TO1. The allocations in the third category (i.e. support that can contribute to mitigation and/or adaptation) are mainly provided through contributions from TO6 in terms of environmental and nature-related interventions.

About 45 % of the OPs address climate change adaptation strategically. It should also be noted that in some Member States (for example Austria, Denmark, Netherlands, Sweden and Ireland) the ERDF and CF OPs do not focus on adaptation. These Member States have typically addressed climate change adaptation extensively in the RDPs (see Chapter 3 and Chapter 7).

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<sup>39</sup> The analysis indeed that shat all Member States do more than deliver on the ring-fencing requirements.

Examples of typical climate change adaptation actions are shown in the table below.

Table 4-8 Examples of climate change adaptation contents of relevant IPs

IP	Key scope	Examples from OPs
5a (ERDF)	Supporting investment for adaptation to climate change, including eco-system based approaches	<p>Actions include planning (including flood risk management plans) and renovation or construction of flood protection measures.</p> <p>Elaboration of regional plans for climate change, vulnerability and risk studies, maps of areas facing flood risks and landslide risks, climate change monitoring databases and regional strategies for integrated management of coastal areas with a view to prevent and minimise climate change risks.</p> <p>Construction of coastal protection shields and stabilisation of the coast in areas with erosion phenomena or areas threatened by sea-level rise; equipment for the prevention of soil erosion caused by the sea.</p> <p>Investments for the upgrading and development of warning and information systems about threats and rescue operations</p>
5i (CF)	Supporting investment for adaptation to climate change, including ecosystem-based approaches	<p>Development or modernisation of infrastructure and ICT systems for monitoring and warning of severe hydro-meteorological phenomena in order to protect from climate change-related risks, mainly floods and coastal erosion.</p> <p>Construction or rehabilitation of infrastructure to reduce the impact of extreme weather events.</p> <p>Flood risk management actions and actions to limit the negative effects of coastal erosion, e.g. dams and dykes for retention of sand, support walls, etc.</p> <p>Interventions to protect and improve biodiversity in relation to the effects of climate change.</p>
5b (ERDF)	Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems	In many cases, the actions proposed do not differ from those under 5a, including works and risk management plans to prevent or protect against floods, forest fires and coastal and soil erosion as the main types of action. In other OPs, actions include raising awareness about risks, warning systems and crisis management.
6d (ERDF)	Protecting and restoring biodiversity and soil and promoting ecosystem services through Natura 2000 and green infrastructure	Green infrastructure (for example, restoring natural floodplains) achieves multiple benefits, including the climate change adaptation element of protecting against flood risks and a possible carbon storage effect. Re-establishing natural floodplains as an action to be supported is included under different IPs, such as 5a, 5b and 6d.

The table also shows which Investment Priority (IP) the actions belong to. The majority of the allocations for climate change adaptation have typically been directed to actions that consider flooding and coastal erosion protection. Other climate change risks, such as heat waves and forest fires, have also been covered, albeit in fewer OPs. For the IP5s (i.e. IPs that relate to TO5), allocations for climate change adaptation are provided through allocations to IF87. The actions described for IP6d are examples of allocations that have the potential of contributing to climate change adaptation in the sense that the IFs can support both climate change adaptation and/or mitigation.

Text box 4-1 provides a few selected concrete examples of how climate change adaptation has been included in specific OPs.

*Text box 4-1 Examples of approaches to climate change adaptation in OPs*

**Example 1 – ERDF-ESF OP Nord-Pas-de-Calais, France (2014FR16M0OP012)**

The OP supports the development of green and blue corridors in urban areas and the integration of biodiversity-related issues in urban and land planning. It promotes new urban models, including prevention of urban heat islands, experimentation in ecological services for ecosystems in urban areas, and awareness-raising actions targeting managers of greened buildings. The OP strategy, in terms of climate change adaptation, is proactive and based on the upkeep of a good ecological state and the improvement of the water cycle to increase self-restoration of natural environments.

**Example 2 – Environmental and Energy Efficiency ERDF-CF OP, Hungary (2014HU16M1OP001)**

The comprehensive approach to flood risk management is considered an innovative solution combining climate modelling, assessment of areas in risk of flood exposure, introduction of a flood forecast system, water status monitoring and revision of risk management plans. As a result, flood control interventions that are supported by comprehensive information and data bases, extensive knowledge and also the conditions for relevant monitoring of results and impacts, complying with the Water Framework Directive, are established.

**Example 3 – ERDF-ESF OP Lubuskie Voivodeship, Poland (2014PL16M2OP004)**

The OP combines TO5 and TO6 under one PA, PA4: 'Environment & Culture', thus creating a comprehensive support in terms of climate change adaptation activities. TO5 and TO6 will implement common objectives in the field of climate mitigation and adaptation to climate change (especially in environmental and sustainable development terms). "Strategic plan for adaptation to sectors and areas vulnerable to climate change by 2020, with the prospect of the year 2030" recognizes, inter alia, water management (including floods, water resources deficits, and water retention possibilities), biodiversity, and Natura 2000 sites as the most important sectors and problem areas in the context of climate-change actions.

Most of the possible green infrastructure actions to be supported are described in very general terms. Also, the associated principles for selection are quite general. It is thus uncertain what type of concrete actions will eventually be implemented in the area of green infrastructure. There is therefore a risk that the climate change adaptation potentials of green infrastructure (as indicated by the financial allocations) may not be fully realised during implementation of the ERDF/CF OPs. For example, in both urban and rural areas, green infrastructure such as wetlands or urban parks could be relevant climate change adaptation measures. In many OPs however, the specific actions to be supported are described as being about either flood protection or protection of biodiversity, with no further elaboration.

The guiding principles for selection of actions are set out in the OPs. They are important, as they scope the eventual selection criteria, and they are thus influential in determining how the OPs will contribute to climate change adaptation during implementation.

For example, the CF can provide for support to infrastructure investment in the transport and environment sectors. From a climate change adaptation perspective, it is important to ensure that climate change resilience is taken into account when supporting such specific investments. Including climate change resilience in the

guiding principles for selecting operations is a good way of promoting this. However, the tendency when reading across OPs is that the guiding principles have remained largely generic in the majority of OPs, but with cases still referencing the horizontal principle of sustainability <sup>(40)</sup>.

Considering only OPs that have climate change within their scope, climate change adaptation has been explicitly mentioned in the guiding principles for about 35 % of the OPs. The majority of the OPs, however, refer in their guiding principles to the horizontal principle of sustainability without being specific about the need to ensure climate change resilience.

A comparison of the first versions of the OPs to the final and approved versions suggests that improvements in relevance to adaptation took place in about 20 % of the OPs that have adaptation within their scope.

#### Climate change mitigation

As was described in the previous section, climate change mitigation is considered in several TOs. The largest allocation for climate change mitigation comes through TO4 (60 % of the total allocation for climate change mitigation) followed by TO7, while TO6, TO1 and TO3 also provide positive, but more modest, contributions (see Table 4-2 for details). In about 85 % of the OPs TO4 is selected. In total, 56 % of the total allocation for climate action in ERDF and CF is for mitigation. About half of this consists of support for transport-related actions. This includes clean urban transport, but also general rail transport actions <sup>(41)</sup>. Also, investments in renewable energy systems and energy efficiency in SMEs are mitigation actions with large allocations. Support to energy-efficiency renovation of public infrastructure and to energy-efficiency improvement of existing housing stock are also important intervention areas in regard to climate change mitigation.

Mitigation has often been included in the guiding principles for selection with regard to TO4. In many OPs, either reduction of energy consumption, or specifically, reduction in GHG emissions, are defined as selection criteria of actions for support.

In OPs where climate change mitigation has been included in other TOs than TO4, for example TO1 and TO7, the guiding principles for the selection of actions are in most cases more general, referring only to sustainability as a criterion. It means that, for the large allocation in TO7 for transport-related activities, it could be important for the monitoring process to observe whether implemented actions have a sufficient contribution to climate change mitigation. A few OPs have explicitly applied the concept of Green Public Procurement (GPP) as part of the selection criteria. GPP requirements can promote climate change mitigation. For example, in relation to investments in transport and environmental infrastructure, GPP could lead to more energy efficient solutions.

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<sup>40</sup> For those infrastructure projects that fall into the Major Project category (projects that receive more than 50 MEUR in support), the requirement to make them climate change resilient is a mandatory part of the appraisal procedure.

<sup>41</sup> As regards the latter, it is worth noting that support for rail transport provides a mitigation impact if the investment implies a reduction in road transport or an increase in the energy efficiency of the rail transport (e.g. by using new, more energy-efficiency equipment).

To further describe the actions that could be supported, Table 4-9 presents typical actions for the IPs that are most relevant to climate change mitigation.

*Table 4-9 Examples of climate change mitigation contents of relevant IPs*

IP	Key scope	Examples from OPs
1b	Promotion of business R&I investments and synergies between enterprises and research centres and institutions. This includes support to eco-innovation.	Examples include support for establishment of energy and resource management systems in companies, energy auditing capability pilot projects, and support to commercialisation of climate change mitigation innovations.
4a	Promoting the production and distribution of energy derived from renewable sources	The actions include, for example, demonstration projects for new energy techniques and use of renewable energy. It could be support to investments in biomass, hydropower or wind energy generation – typically small-scale plants. Other examples include pilot projects to stabilize power networks, projects on power storage (e.g. hydrogen as storage medium), as well as implementation of smart distribution systems, including intelligent load management and intelligent grid control, smart grids, and smart metering.
4b	Promoting energy efficiency and renewable energy use in enterprises	The actions include, for example, pilot and demonstration projects for energy efficiency, energy savings and use of renewable energy in enterprises. This could include modernisation and renovation of electricity-using equipment, heating and cooling systems.
4c	Supporting energy efficiency, smart energy management and renewable energy use in public infrastructures including public buildings, and energy efficiency in the housing sector.	Most OPs have actions such as renovation of public buildings (educational facilities like schools and universities, hospitals) with respect to insulation of facades, doors and windows. Also, the use of renewable energy sources for public buildings is mentioned as an action for support. It also includes examples of improving energy efficiency in public infrastructure, such as street lightning and wastewater treatment plants.
4e	Promoting low-carbon strategies in particular for urban areas and including promotion of sustainable urban mobility.	Examples include support to sustainable urban mobility planning. Actions also include specific support to stations and terminals that can facilitate a shift to more sustainable transport. It sometimes includes investment in low-emission transport vehicles and in-cycle infrastructure.
7c	Developing and improving environmentally-friendly and low-carbon transport systems.	Examples include investments in low-emission public transport means and investment in cycling infrastructure, and investment in inland-waterway transport facilities.

Support to improving the energy efficiency of public infrastructure and the existing housing stock has been included in many OPs. This includes renovations that will increase the insulation of buildings and improve the efficiency of heating and cooling systems. Below are a few examples of how climate change mitigation has been approached in specific OPs.

*Text Box 4-2 Examples of innovative approaches in relation to mitigation*

**Example 1 – ERDF OP Berlin, Germany (2014DE16RFOP003)**

The OP contains a loan financial instrument for investments in efficiency measures. This can add to the positive effect of the support (leverage). Berlin has a good city-wide concept and local laws for energy and climate change. These build a strategic basis and a useful instrument for steering measures, including ERDF-funded ones. This can lead to effectiveness and complement measures financed by different sources (funds and programmes).

**Example 2 – ERDF OP Cantabria, Spain (2014ES16RFOP008)**

1. The OP seeks to make the buildings and installations of regional enterprises a point of reference in the field of energy efficiency. It foresees the establishment of information offices that will provide tailored information to enterprises on procedures for support. 2. The OP will provide financial support to improve the energy efficiency of heating and cooling systems. This support will be conditional upon ex-ante audits and monitoring of results. There will be an energy savings objective fixed in advance that will lead to an energy certificate as a result of the building rehabilitation according to energy efficiency criteria. Actions may be carried out by Energy Services Enterprises. 3. For improvement of energy efficiency and reduction of CO2 emissions in public infrastructure and buildings, the OP will support installation of renewable energy systems and equipment, such as solar panels, to produce hot water for houses or air-conditioning.

**Example 3 – Competitiveness, entrepreneurship and innovation National ERDF-ESF OP, Greece (2014GR16M2OP001)**

The OP effectively addresses entrepreneurship mechanisms in combination with climate change mitigation. The combination is necessary under the “new development model” strategy that permeates the OP. For example, under PA3, the reinforcement of infrastructure to improve energy efficiency, energy saving and the use of renewable energy sources will reduce overall energy costs for enterprises but also contribute to climate change mitigation through the reduction of carbon emissions, contributing to the Europe 2020 objectives. In this way, the OP pursues sustainable smart growth and climate change mitigation simultaneously.

Horizontal principle of sustainability

The requirement in the Common Provisions Regulation (CPR) Article 8 on sustainable development has - to a varying extent - been integrated in the OPs. There are two dimensions to integrating the horizontal principle of sustainability the OPs. One is about further describing the different components of sustainable development where climate change is one, and the other is about including sustainable development in all elements of the OPs. Most often, there are references to sustainable development in the overall strategy of the OP and in the guiding principles for selection of actions without considering the specific aspects of sustainable development. It means that climate change is not specifically mentioned as one of the key aspects of sustainable development. For example, under the guiding principles for selection of actions, it could just be stated that sustainable development should be considered in the selection of actions with no further elaboration. More comprehensive integration, where the principles of sustainable development have been explicitly included in the specific objectives and in the proposed actions, is seen to a lesser degree. Similarly, the different elements or components of sustainable development are not described in the OPs.

## 4.4 Key conclusions

Overall, it is evident that European Regional Development Fund and Cohesion Fund provides significant support for climate action. In 20 of the 28 Member States, the support for climate action out of total support is above 20 %. In no Member State does the allocation for climate action go below 18 %.

The two funds provide an important contribution to the political target that at least 20 % of EU spending should be in support of climate action. The two Funds together provide for it that 12 % of European Structural and Investment funding is in support of climate action. Adding the contributions from the European Territorial Cooperation Goal; from the European Social Fund; from the European Agricultural Fund for Rural Development; and from the European Maritime and Fisheries Fund, the climate share reaches 25%.

Overall, the majority of the Operational Programmes have mainstreamed climate action across the board: Climate action allocations are provided for in almost all the Thematic Objectives and climate action is addressed strategically and specifically under the respective Priority Axes.

Judged by the financial allocations, 30 % of the support for climate action relates to transport actions such sustainable urban transport, rail transport and bicycle infrastructure. One-quarter is for energy efficiency improvements in buildings, while adaptation accounts for a little more than 10 % and renewable energy is the fourth important theme, with about 9 % of total allocations for climate action.

Almost EUR 6 billion has been allocated for climate change adaptation. In addition to that, another EUR 4 billion has been allocated for categories that have the potential for contributing to climate change adaptation and/or mitigation. In supplement, it should also be mentioned that some Member States have concentrated their support for climate change adaptation more to the European Agricultural Fund for Rural Development. Still, nearly half of the Operational Programmes address climate change adaptation strategically. Allocations for adaptation are most often seen as being directed toward actions to prevent or protect against floods and coastal erosion, through both the construction of infrastructure to reduce the impact (e.g. dykes), as well as the modernisation of monitoring and warning systems are also seen. Other risks are also addressed.

The total support for climate change mitigation is EUR 43 billion. This does not include the EUR 4 billion that could support both mitigation and adaption. Mitigation is addressed in the majority of the Operational Programmes. Thus, about 85 % of all programmes have selected Thematic Objective 4 (low carbon economy). The mitigation-relevant actions include support to sustainable transport, energy efficiency in buildings and renewable energy systems.

Transport actions comprise more than a third of allocations for climate change mitigation. The climate markers assign 40 % to investments in rail and other more sustainable transport modes. This means that 40 % of the allocated support counts towards climate action. While the common methodology's climate markers provide for a mechanical, transparent and comparable way of reporting and tracking

climate action support, this is also illustrative of a potential weakness in the methodology. Equipment replacement and new constructions *can* involve climate change mitigation. But whether and to what extent this happens depends on a number of factors, such as a) the extent to which transport is shifted away from more fuel-consuming modes of transport and b) the extent to which the investments lead to improved energy efficiency and/or advantageous fuel shifts.

Climate mainstreaming is quite often not covered that explicitly and concretely in the guiding principle for operation selection. It is estimated that in only 10-20 % of the Operational Programmes are the guiding principles specific about climate change objectives. The rest refer predominantly to the horizontal principles, without being more specific than that.

Based on the above findings and observations a few more forward looking themes can be identified of possible relevance to the implementation of the adopted programmes and to the next programming phase.

**On EU stimuli to enhance Member State readiness:** While a varying degree of integration of climate action in the Operational Programmes is observed it is nevertheless apparent that climate action has been actively considered in the preparation of programmes. The provision of Commission Position papers and guidance are factors that can have contributed to this along with the specific requirement for allocation to Thematic Objective 4 (low carbon economy) as well as the overall political target of 20 % allocations for climate action. The regulatory framework as such including the common methodology (the climate markers) are also factors that can have contributed to this together with the comments provided to Member States in response to their first official submissions. One can also observe that there are programmes and Member States where climate change adaptation was given a significant contribution and role. In these cases, the explicit framing of TO5 (adaptation and risk management) as well as the establishment of Intervention Field 087 (climate change adaptation) may have assisted to generate an explicit awareness of the potentials of the European Regional Development Fund and the Cohesion Fund in contributing to climate change adaptation. In this regard, it may be worth considering to introduce a distinction into the markers whereby climate change adaptation can be separated from climate change mitigation also in the financial allocations.

**On implementation, monitoring, evaluation:** In the implementation, focus should be on ensuring that the intentions of the Operational Programmes to support climate actions are actually delivered on. The definition of the specific selection criteria and the output/results indicators are crucial elements in this. The selection criteria (established by Managing Authorities) should ideally place weight on actions and projects that contribute significantly to climate change mitigation or adaptation objectives. Careful monitoring of the selection and implementation of the supported actions is also important. For example, following the transport actions closely can provide good insights as to the extent to which they actually deliver on the envisaged contributions to climate action. Such insights can provide valuable knowledge that can feed into the development of good practices to inspire future programming and if relevant, also into a further detailed scoping of the climate markers. Another issue that could be taken into account for future



programming is about the indicators. Not all programmes have used the standard, defined indicators or defined specific indicators that allow for monitoring progress with regard to climate action.

## 5 European Territorial Cooperation

Number of programmes and types of cooperation	European Territorial Cooperation (ETC) is a goal under the European Regional Development Fund (ERDF), yet subject to its own regulation <sup>(42)</sup> . A total of 75 ETC Cooperation Programmes (CPs) receive funding from the ERDF during the 2014-2020 programme period <sup>(43)</sup> . This includes all three strands of cooperation (cross-border cooperation, transnational cooperation and interregional cooperation), which are further explained below.
TOs covered by ETC	The CPs follow a structure similar to the one for ERDF, the European Social Fund (ESF) and the Cohesion Fund (CF). Although CPs can potentially include all Thematic Objectives (TOs), they are asked to focus on a limited number of themes. In general, CPs focus on a maximum of 4 TOs. Figure 2-1 lists the 11 Thematic Objectives that are defined in the Common Provisions Regulation (CPR).
Strands of cooperation	CPs are categorised into three different strands of cooperation: <ul style="list-style-type: none"><li>› Cross-border – There are 57 such CPs. They promote direct cross-border cooperation amongst countries along a common border and are designed to address commonly shared challenges, such as floods.</li><li>› Transnational – There are 15 such CPs. They cover larger geographical regions, such as the Mediterranean region. Therefore, these types of CPs include several countries. Their objective is related to the implementation of strategies at the macro-regional and sea-basin level.</li><li>› Interregional – There are 3 CPs that cover the entire EU territory and aim to improve cooperation within research and information exchange on matters related to all eleven TOs. The Interregional programmes included in this assessment are INTERREG EUROPE, URBACT and ESPON.</li></ul>
Structure of this chapter	This chapter first provides an overview of the financial allocations for climate action in the CPs. Thereafter, a more detailed analysis is provided of the types of climate actions included in CPs. Finally, the role of macro-regional strategies is assessed in relation to climate action in the ETC programmes.
Support for climate action in ETC	<h3>5.1 Overview of financial allocation</h3> <p>Support for the ETC is EUR 9,109 million, which corresponds to 2 % of total ESIF support. The cross-border programmes take up the largest share of the ETC allocation by far, followed by the 15 transnational programmes (see Table 5-1 below).</p> <p>The different strands of cooperation (cross-border, transnational and interregional) imply different opportunities for climate action. The CPs are usually coordinated with other funds, other ETC programmes and/or with national and macro-regional</p>

<sup>42</sup> Commission Regulation (1299/2013)

<sup>43</sup> According to INFOVIEW <https://cohesiondata.ec.europa.eu/>

strategies. The ETC provides a modest absolute contribution to climate action (see below for further detail). However, this is largely due to the fact that the ETC constitutes a low share of overall support from the European Structural and Investment Funds. In total, the CPs actually contribute more than 20 % (20.6 %) of their funding for climate action. It should be noted that ETC in general does not support investments. Rather, it focuses on softer cooperation activities. This applies especially to transnational and interregional programmes, which are of a highly cooperative nature.

*Table 5-1 Allocation for climate action in the ETC: MEUR and shares of funds-specific support and of total ESIF support respectively*

ETC Type	Support for climate action, MEUR	Support for climate action, percentage of total ETC support: for each type	Support for climate action, percentage of total ESIF support
Cross-border	1,217	18.6	0.3
Transnational	647	29.8	0.1
Interregional	34	7.1	>0
Total	1,898	20.6	0.4

Improvements observed

When comparing the first official versions <sup>(44)</sup> of the CPs to the approved versions, the allocation for climate action has increased from 19 % to 21 %. It should also be noted that some CPs (30 %) have improved on the mainstreaming of climate action in terms of referring to climate change in the description of activities and actions. Such improvements are generally seen in the description of TO1, where references have been included to innovation in energy and transport.

## 5.2 Breakdown of financial allocations for climate action

Distribution of ETC support in total and for climate action distributed over TOs

Table 5-2 shows the total ETC support for each TO and CP. Further, the table shows the estimated climate share of each TO in the ETC. Cross-border programmes overall allocate a substantial share of support to TO6, TO1, TO7, TO11, TO9 and TO8 (ordered by relative magnitude). The focus on these TOs cross border programmes reflects that they tend to focus on direct cooperation on the ground and in specific border areas. Here, issues such as employment, job creation and education (linked to TO8 and TO9) are likely to be seen as important and relevant for ETC. Transnational CPs are seen as focused primarily on TO1 and TO6. The transnational CPs have no allocations for TO8, which is likely to be due to the wider geographical scope of those programmes. Two of the interregional CPs focus exclusively on TO11. One of them focuses evenly on TO1, TO3, TO4 and TO6. There are no allocations for other TOs under the interregional CPs.

The TOs that relate most directly to climate action (TO4 and TO5) allocate a high fraction of their support for climate action (see below table). Further, it is interesting

<sup>44</sup> These versions of the CPs were subject to the first Inter-Service Consultation (ISC).

to note that the focus on climate action under TO6 is considerably higher for ETC than under the ERDF/CF (23.8 % as compared to 10.8 %). Especially for those types of actions that protect and preserve the environment, territorial cooperation yields the greatest benefit. The high climate share in this TO shows that ETC programmes as a whole appear to recognise those benefits. This has further repercussions on support for climate action, given that actions on e.g. biodiversity indirectly contribute to climate action. The high climate share in TO7 is a further interesting observation. All climate-relevant interventions in transport (railways, shipping, multimodal transport, or intelligent transport systems) carry a climate marker of 40 %. A climate share of 31.3 % in transport indicates that a large share of the interventions are possibly climate-relevant – judged by the selected Intervention Fields (IFs).

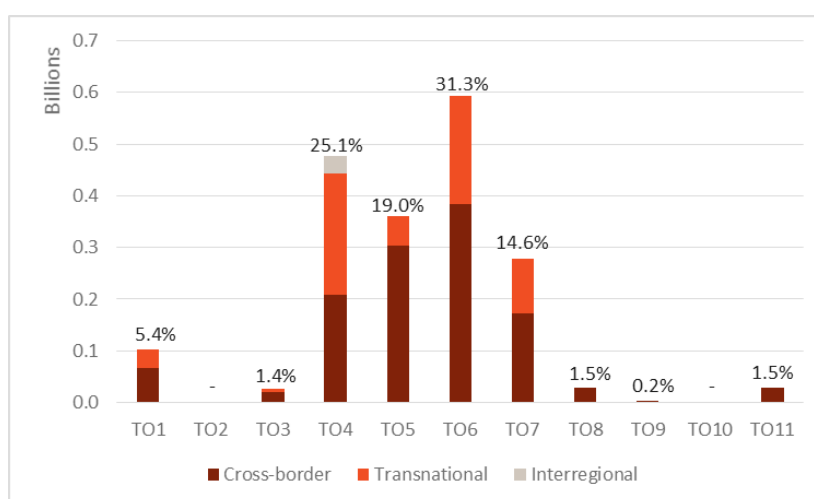
Table 5-2 ETC support per type of programme in total and allocation by TO, MEUR and share of support under each TO allocated for climate action, % <sup>(45)</sup>

Support per TO (MEUR)	Type	TO 1	TO 2	TO 3	TO 4	TO 5	TO 6	TO 7	TO 8	TO 9	TO 10	TO 11	Total
Support, ETC	Cross-border	1,103	2	345	223	391	1,745	653	412	464	180	587	6,106
	Transnational	644	-	62	266	67	668	235	-	14	18	81	2,055
	Interregional	84	-	84	84	-	84	-	-	-	-	109	447
	Total	1,831	2	492	574	458	2,497	889	412	478	198	776	8,607
<b>Climate share in TO, ETC (%)</b>		5.6	-	5.2	82.9	79.0	23.8	31.3	7.0	0.7	-	3.8	22.1

Support for climate action in TOs

Figure 5-1 below illustrates the allocations of climate action to each TO by programme type, and the distribution of climate action among TOs in the ETC.

Figure 5-1 Estimated support for climate action by TOs in the three programme types, Billion EUR and estimated distribution of total support for climate action over TOs



<sup>45</sup> The climate shares for each TO do not include Technical Assistance.

Most of the climate action in ETC, nearly one third (EUR 594 million), is dedicated to actions under TO6. The TO that can be said to relate most directly to climate change mitigation (TO4) accounts for a quarter of the climate action, and it is actually the only climate-relevant TO for interregional CPs when judged by the financial allocations. The total support for climate action is substantially higher in transnational CPs than in the cross-border CPs. The transnational CPs have a budget that corresponds to one third of the budget of cross-border CPs. Climate change mitigation often does not require ‘site-specific’ solutions applicable to a wider geographical scope, which allows the harvesting of benefits from joint, broad cooperation on shared challenges, such as transport infrastructure. The classic climate change adaptation TO (TO5) covers about a fifth of the climate action in ETC. Here, more than three quarters of the support for climate action is dedicated to cross-border programmes, which can be explained by the fact that climate change adaptation is often a ‘site-specific’ challenge with solutions that better suit the scope of cross-border programmes. Notably, no climate action is foreseen in TO2 and TO10.

Climate relevant themes in ETC programmes

Further insight as to how the CPs support climate action can be provided through considering the selected Intervention Fields (IFs). Figure 5-2 below shows a thematic categorisation of climate-relevant IFs, and the corresponding share of climate action in the ETC.

Figure 5-2 Distribution of support for climate action in ETC per thematic category, MEUR and percentage share

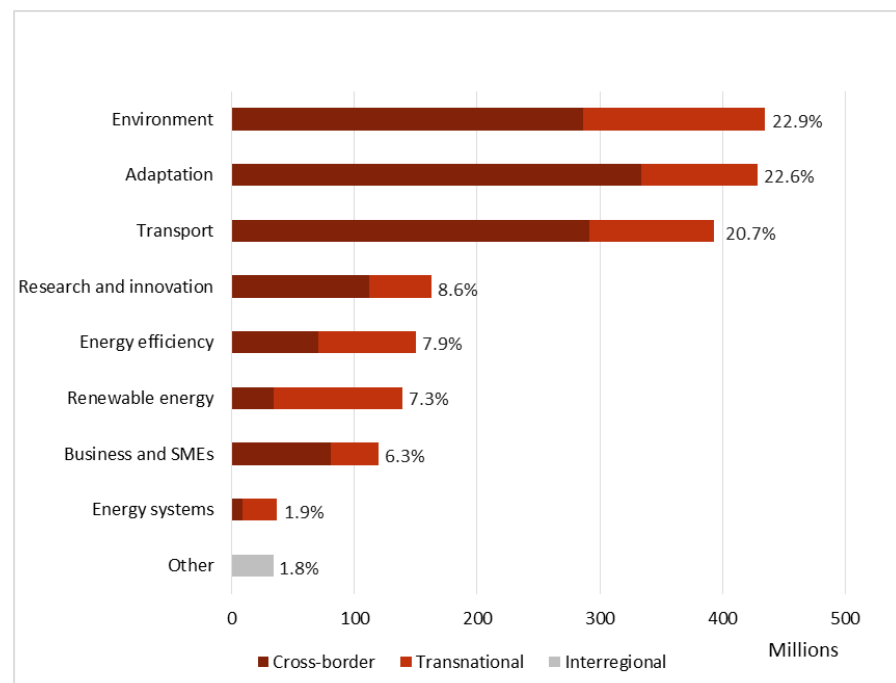


Table 4-5 in section 4.2 provides the elaborate description of how the thematic categorisation of IFs has been done. Overall, cross-border and transnational CPs have mainstreamed climate action across all relevant sectors. Actions on the environment, climate change adaptation, and transport make up two thirds of the total climate action in the ETC. Compared to the ERDF, the share of climate action dedicated to climate change adaptation as well as to the environment is more than

twice as high in ETC. As already indicated above, this illustrates that Member States, judged by financial allocations, largely recognise climate change adaptation in their CPs as a phenomenon beyond national borders.

Distribution of support for climate action over thematic categories

A more elaborate display of climate action by categories and CP types can be found in Figure 5-2 below. As the table shows, climate change adaptation accounts for the greatest share of climate action in cross-border CPs, unlike in the overall ETC picture. Further, it can be seen that adaptation is allocated only the fourth largest share of climate action in transnational CPs. This can be explained by the fact that climate change mitigation, expressed as actions on energy efficiency, renewable energy and energy systems, receives a greater deal of attention in the transnational CPs. Climate action in interregional CPs is limited to the focus of establishing a knowledge network, which explains the absence of investment in any of the listed categories.

Table 5-3 Support for climate action in ETC distributed over thematic categories and by CP type, share of total climate support in CP type and in total

	Environment	Adaptation	Transport	Research and innovation	Energy efficiency	Renewable energy	Business and SMEs	Energy systems	Other
<b>Cross-border (%)</b>	23.5	27.4	23.9	9.2	5.8	2.8	6.6	0.7	-
<b>Transnational (%)</b>	22.9	14.6	15.7	7.8	12.3	16.3	6.0	4.3	-
<b>Interregional (%)</b>	-	-	-	-	-	-	-	-	100.0
<b>Total (%)</b>	22.9	22.6	20.7	8.6	7.9	7.3	6.3	1.9	1.8

The five CPs with the highest share allocated for climate action

A look on the five CPs with the highest climate shares can give insights as to how those CP (which received a high climate share), consider climate action thematically. Table 5-4 shows the five CPs with the largest climate allocations.

Table 5-4 The five CPs with the highest climate share and the estimated distribution of climate action over TOs

Rank	Type	Title	CCI	Geographical coverage	Share (%)	TO1 (%)	TO4 (%)	TO5 (%)	TO6 (%)	TO7 (%)
1	TN	North Sea	2014TC16RFTN005	BE-DE-DK-NL-SE	45.2	-	-	24.4	60.6	15.1
2	CB	Two Seas	2014TC16RFCB038	BE-NL-UK	42.3	11.9	47.3	35.5	5.4	-
3	TN	Caribbean Area	2014TC16RFTN008	FR-3rd countries & others	38.5	-	31.5	56.8	11.7	-
4	TN	North West Europe	2014TC16RFTN006	BE-DE-IE-LU-NL-UK	36.2	-	69.1	-	17.7	13.3
5	CB	St. Martin - St- Maarten	2014TC16RFCB043	FR	36.0	-	-	83.3	16.7	-

These five CPs account at the same time for 19 % of the total ETC support for climate action (i.e. EUR 356 million out of EUR 1,898 million). In most cases, climate change adaptation (TO5) receives a substantially greater share of climate

action than is common for the ETC (19 %). For the three programmes that address climate change mitigation (TO4), the share allocated is again significantly higher than the overall share. Climate action related to the environment (TO6) is in one case significantly above the overall ETC picture ('North Sea'), while the other four CPs tend to allocate less climate action than the ETC average.

### 5.3 Climate action in ETC

This section describes how climate action has been mainstreamed in the ETC. This is done by looking at the strategies as well as the typical actions and guiding principles for the selection of actions.

ETC support for adaptation and mitigation

The classification of the IF's climate-relevance into mitigation and adaptation actions provides a good basis to differentiate the indicated types of climate action in the ETC. Table 5-5 below shows the classification of climate action as mitigation, adaptation, and mitigation and/or adaptation; The latter refers to actions with a potential to contribute to climate change adaptation as well as to climate change mitigation (cf. the introduction chapter on the underlying methodology).

*Table 5-5 Estimated ETC allocations for mitigation, adaptation, and actions that may support both, MEUR*

Total ETC Support (MEUR)	Total Climate Action Support in ETC (MEUR)	Of which for mitigation (MEUR)	Of which for adaptation (MEUR)	Of which for mitigation and/or adaptation (MEUR)
9,191.9	1,898.1	1,028.0	428.4	441.7

Adaptation in ETC

As the analysis (cf. Table 5-3 and Figure 5-2) and Table Table 5-5 above show, slightly less than a quarter of the climate action in ETC is dedicated to climate change adaptation. In terms of CP types, climate change adaptation is mainly addressed by cross-border CPs, while transnational CPs have a comparably stronger focus on mitigation. The share of climate action that addresses mitigation and/or adaptation is slightly higher than that of adaptation alone. Most of the actions classified as mitigation and/or adaptation relate to environmental preservation. In total, 4.7 % of the total ETC support falls into this category. By comparison, it is only 1.7 % of the total ERDF/CF support. This indicates an awareness of the potentials of environmental preservation actions when undertaken under territorial cooperation.

The above observations points to an awareness of the potential of the ETC to contribute to climate change adaptation when judged by financial allocations. This is confirmed by the contents of the CPs, where flooding and coastal erosion are often addressed <sup>(46)</sup>. This apparent awareness is a reflection of the geographical

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<sup>46</sup> Nevertheless, it should be noted that many CPs tend to be rather general in the way they address climate action.

orientation of the ETC CPs: On border areas, which in turn imply shared resources (such as land or waters – examples include mountains, rivers, lakes or sea basins) and hence shared risks and interdependency with regard to climate change adaptation. Therefore, prevention, preparedness, impacts and response cooperation with regard to adaptation is an obvious focus for cross-border and transnational CPs.

Table 5-6 below shows the four most frequently selected Investment Priorities (IP) in the CPs (cross-border and transnational), supported with examples of actions under these IPs.

Table 5-6 *Examples of climate change adaptation contents in relevant IPs*

IP	Key scope	Examples from cooperation programmes
5a	Supporting investment for adaptation to climate change, including eco-system based approaches	<p>Examples of indicative types of cross-border actions to be supported under this SO include:</p> <p>Jointly commissioned research where there are clear gaps in the evidence based on shared climate change impacts on the Irish Sea and coastal communities;</p> <p>Joint development of tools to stimulate the cross-border exchange of knowledge and best practices with regard to climate change adaptation amongst coastal communities to influence behavioural change;</p> <p>Providing mechanisms and platforms for the sharing of knowledge about risks and opportunities from climate change between stakeholders in Ireland and Wales (Ireland-UK (Wales), CCI 2014TC16RFCB048)</p>
5b	Promoting investment to address specific risks, ensuring disaster resilience and developing disaster management systems;	<p>Development of joint studies, tools and methods; awareness-raising, communication and training actions; testing of innovative methods to address specific risks. For example: integration of monitoring data and networks on landslides, avalanches, floods and earthquakes; use of advanced methods, such as drones and satellites, to monitor risks. (France-Italy (ALCOTRA), 2014TC16RFCB034)</p>
6d	Protecting and restoring biodiversity and soil and promoting ecosystem services including through NATURA 2000 and green infrastructure	<p>Increase and restoration of biodiversity and of ecosystem services through</p> <p>(1) Strategic cooperation for nature protection and landscape preservation, regarding concepts and management plans. This includes concepts and plans for the preservation and development of bogs and woods, and to avoid erosion caused by floods. (2) Actions on green infrastructure, including developing woods and other green areas as natural retention areas for flood protection. (3) Actions for protecting species and biotopes</p> <p>(Germany/Bavaria-Czech Republic, CCI 2014TC16RFCB009)</p>

### Mitigation in ETC

As Table 5-5 above shows, about more than half of the climate action in ETC is dedicated to mitigation actions. Looking at climate action by TO, climate change mitigation (TO4), transport (TO7), and research and innovation (TO1) are by far the most important TOs addressed (cf. Figure 5-1). Research and innovation, energy efficiency, and renewable energy are key topics that the ETC CPs choose to cooperate on. As previously mentioned, actions on energy matters are primarily addressed in transnational CPs. TO7 contributes to the mitigation of climate change through transport systems, and plays a crucial role in some CPs, such as in the ‘Sweden-Denmark-Norway’ CP. The key mitigation-relevant IPs chosen in the ETC are shown in Table 5-7 below, which again provides examples of how climate change mitigation is taken on board.



*Table 5-7 Examples of climate change mitigation contents of relevant IPs*

IP	Key scope	Examples from programme
1b	Promoting of business, R&D&I investment, developing links and synergies between enterprises, research and development centres and institutions. This includes eco-innovation,	Development of technological and applied research in particular using key enabling technologies, pilot projects, investments for low-scale material infrastructure or e-infrastructure. Some actions relate to climate change as they refer to key enabling technologies, which include low-carbon technologies. (Two Seas, 2014TC16RFCB038)
4c	Supporting energy efficiency, smart energy management, and renewable energy use in public infrastructures including in public buildings, and in the housing sector	Measures to promote low-energy and energy-efficient solutions, and upgrade skills in public sector operation, construction and development departments.  Projects that mobilise and create a consensus on common challenges, e.g. application of new technologies, materials, systems and solutions, development of services and solutions that make energy management better and easier. (Sweden-Denmark-Norway, 2014TC16RFCB026)
4e	Promoting low-carbon strategies for all types of territories, in particular for urban areas, including the promotion of sustainable multimodal urban mobility and mitigation-relevant adaptation measures.	Implementation of low-carbon energy or climate protection strategies (localised energy generation and supply, distribution and efficiency management, or other means of reducing carbon emissions at a territorial level and their delivery).  Analysis, testing, demonstration and implementation of solutions that integrate mitigation and adaptation measures (reduction in GHG emissions and reduction in risks), e.g. innovative approaches such as Water Sensitive Urban Design, optimised water distribution and CO2 neutral maintenance of adaptation measures. (North West Europe, 2014TC16RFTN006 )
7c	Developing and improving environmentally friendly (including low-noise) and low-carbon transport systems, including inland waterways and maritime transport, ports, multimodal links, and airport infrastructure in order to promote sustainable regional and local mobility	Types of actions include development of green cross-border transport corridors including core TEN-T network, measures to support rail transport, investigate and test Intelligent Tolling Systems, developing solutions for greening of maritime transport and measures for sustainable urban transport. (Sweden-Denmark-Norway, 2014TC16RFCB026)

Description of the climate actions

In a number of the CPs that have a relatively high share of support allocated for climate action, the specific climate-related actions are not very explicitly described. Further, the guiding principles of the selection criteria and horizontal principles that relate to climate change mitigation or adaptation are often not well developed in those CPs. Rather, a reference is made that this will be addressed in the programme manual to be prepared after the approval of the CP.

Alignment with macro-regional strategies

### 5.3.1 ETC programmes and the macro-regional strategies

A ‘macro-regional strategy’ provides an integrated framework to address common challenges faced by a defined geographical area to strengthened cooperation for economic, social and territorial cohesion. ETC programmes are an important part of the instruments that implement macro-regional strategies. Alignment with EU macro-regional strategies is mentioned in the CPs where relevant. In some CPs, the links are explicitly illustrated, and in others a general reference is made to the macro-regional strategy.

The most relevant programmes in this context would be the transnational CPs. The macro-regional strategies are, for transnational CPs, an important framework and a key factor in ensuring alignment across the high number of up to eight Member States involved. The transnational CPs are often programmed using the framework of the relevant EU macro-regional strategies.

Macro-regional strategies and related CPs

Table 5-8 lists the link between the macro-regional strategies, the relevant programme (only CPs covering areas which have an EU macro-regional strategy are included) and the individual CPs' climate share. All these CPs have a climate share above the average for ETC of 21 %. All transnational programmes in Table 5-8 include a specific reference to the alignment vis-à-vis the EU macro-regional strategy. The transnational CPs listed in the table generally include assistance to implementation of the macro-regional strategy under TO11.

Table 5-8 Overview of transnational CPs (and the share of their support marked for climate action) and the related macro-regional strategies

Macro-regional strategy	Country coverage	Relevant transnational programmes	CCI	Climate share %
Baltic Sea Region	Sweden, Denmark, Estonia, Finland, Germany, Latvia, Lithuania and Poland (within the EU)	Baltic Sea Region	2014TC16M5TN001	22.3
EU Strategy for the Danube Region	Germany, Austria, the Slovak Republic, the Czech Republic, Hungary, Slovenia, Romania and Bulgaria (within the EU)	Central Europe	2014TC16RFTN003	29.8
		Balkan-Mediterranean	2014TC16M4TN003	31.2
		Danube Transnational Cooperation Programme	2014TC16M6TN001	25.0
EU Strategy for the Adriatic and Ionian Region	Croatia, Greece, Italy and Slovenia (Within the EU)	Adriatic	2014TC16M6TN001	28.3
		Mediterranean	2014TC16M4TN001	28.7
An EU Strategy for the Alpine Region	Austria, France, Germany, Italy and Slovenia (within the EU).	Alpine Space	2014TC16RFTN001	24.0

*Some CPs (e.g. the 'Danube Transnational Cooperation Programme'), include a very detailed analysis of how the programme is aligned with the macro-regional strategy. This CP actively uses the macro-regional strategy and aligns the priorities of the CP with the priority areas of the macro-regional strategy (see Text box 5-1*

Other programmes, such as the 'Baltic Sea Region' CP, are more general in their reference to the EU macro-regional strategy, stating that the programme will assist in the implementation of the strategy.

For cross-border CPs, reference to coordination and alignment vis-à-vis macro-regional strategies is mentioned in at least 21 of 56 programmes. In cross-border programmes, a general reference is made to the priority axes of the CP being aligned with a number of strategies (e.g. EU, national or regional strategies), the macro-regional strategy being one of these. A few CPs have a specific reference

and consider themselves a key contributor to the implementation of the strategy. An example is provided below.

*Text box 5-1 Example of alignment of a transnational CP with macro regional strategy*

**The Danube Transnational Cooperation Programme (CCI 2014TC16M6TN001)**

The CP is aligned with the EU Strategy for the Danube Region (EUSDR) taking into consideration several Priority Areas of the EUSDR, e.g. Water quality, Environmental risks, Mobility, Energy, etc. The CP focuses on water management, environmental protection through actions in three fields: water management including flood protection (6b), conserving natural heritage (6c), and protection of biodiversity and habitats (6d). It also targets sustainable transport and energy efficiency initiatives under a separate Priority Area focusing on environmentally friendly transport systems (7c), reducing energy dependency through better coordination and efficient distribution systems (7e).

*Text Box 5-1 Example of alignment of a cross-border programme with a macro-regional strategy*

**Interreg V-A France-Switzerland (CCI 2014TC16RFCB041)**

The CP refers to the alpine macro-regional strategy, which is under preparation. Three pillars have been defined for this macro-regional strategy, including one on sustainable mobility and one on sustainable management of energy resources. The CP is considered an important tool for the implementation of this strategy. Moreover, consistency is sought, with regional smart specialisation strategies and regional schemes on climate, air and energy.

## 5.4 Key conclusions

The analysis points to the following key observations:

Overall, Cooperation Programmes contribute more than 20 % of their total support for European Territorial Cooperation to climate-related issues: 20.6 %. There are, however, large differences between the individual Cooperation programmes. Transnational programmes in particular have a relatively high share of support for climate action (29.8 %), and the share is also significant in cooperation programmes (18.6 %), whereas it is more modest in interregional programmes (7.1 %). This difference reflects the strand of cooperation that is embedded in the three types of programmes.

All Cooperation Programmes in the three programme strands include support for Thematic Objectives 1, 4 and 6 (research, technological development and innovation; low carbon economy; and nature & environment respectively). Furthermore, cross-border and transnational programmes also include support for climate action under Thematic Objective 5 (adaptation and risk management). It should also be noted that cross-border programmes have considerable allocations for Thematic Objectives 8, 9 and 10 ((employment & labour mobility, social cohesion & discrimination, education & training respectively), but no associated support for climate action. The focus in cross-border programmes on the latter three Thematic Objectives reflects that cross-border education and employment

are often important issues in border areas (e.g. in terms of languages and access to local labour markets). Many of the Cooperation Programmes (cross-border & transnational) address areas of specific geographical significance (rivers or sea/lakes which form the border). Therefore, issues related to flooding, coastal erosion and disaster management are seen in many of the Cooperation Programmes.

The link to EU macro-regional strategies is found in the cross-border and transnational programmes. The transnational programmes are often closely linked to EU macro-regional strategies (due to common geographical coverage). However, the way in which Cooperation Programmes have expressed the alignment is different. Some Cooperation Programmes refer directly to the macro-regional strategies in a specific manner (linking priority areas of the macro-regional strategies to priority axis), while others are more general in their alignment.

A few of the analysed programmes include only limited descriptions of climate-specific actions and climate-related selection criteria. In addition, horizontal principles often do not have very specific, if any, reference to climate action. Mainstreaming of climate action through a more detailed description of actions and through stronger integration in selection criteria and horizontal principles may strengthen the climate action focus of the programme. However, such strengthened references were not called for in the programme-specific guidance.

Building on the lessons learned from the assessment of the mainstreaming achievements of the Cooperation Programmes, issues can also be identified that are of a more forward-looking nature:

**On EU stimuli to enhance Member States' readiness** Differences are observed in how programmes consider climate action, and the way in which it is on-boarded in the programmes, e.g. in terms of considerations for guiding principles or selection criteria and indicators. While the political target of 20% has implied some level of attention on climate action, the readiness to thoroughly on-board climate action can be further stimulated through developing example based guidelines or good practices specific for the European Territorial Cooperation Goal. Carefully following the implementation of a selected sample of programmes in more detail would enable the identification of such good practices comprising the cycle from programme preparation to programme implementation. This could feed into the elaboration of guidance for future programming that could build on actual experience from programme implementation, thereby further inciting Member States to pay attention to the potential of the European Territorial Cooperation Goal to contribute to climate change adaptation and climate change mitigation

**On project implementation:** The support for climate action in the Cooperation Programmes can be seen mainly as motivated aspirations. The extent to which this will eventually materialise will be seen during project implementation. Encouraging Managing Authorities to include specific and relevant climate action provisions as part of the selection criteria in their programme manuals can be an important contributor to the realisation of those aspirations. This can thus have a decisive role in relation to how much climate action will eventually be delivered, and is of

particular importance, given the relatively high overall level of climate support in the European Territorial Cooperation programmes.

**On monitoring and indicators:** Output indicators are a particular challenge in Cooperation Programmes. The programmes are to use the same indicators as for the European Regional Development Fund. However, Cooperation Programmes are of a cooperative nature and do not as such involve hard investments. Partly in consequence thereof, the some programmes develop their own output indicators in order to monitor climate action. This the case, for example, in the Danube programme. Other programmes, however, do not have climate-related indicators (e.g. Baltic Sea Region). It may be considered to develop common climate oriented indicators of relevance in the context of the European Territorial Cooperation Goal for future programming.

## 6 European Social Fund

Number of programmes and mainstreaming opportunities in ESF

In total, there are 187 European Social Fund (ESF) Operational Programmes (OPs). This estimate includes 92 multi-fund OPs (cf. table 4-2 in Chapter 4 for an overview of multi-fund OPs by lead DG). Multi-fund programmes combine ESF with European Regional Development Fund (ERDF) and/or with Cohesion Fund (CF). Mainstreaming of climate action is achieved through considering opportunities to integrate climate action into the four Thematic Objectives (TOs) that ESF covers: TO8, TO9, TO10 and TO11. Figure 2-1 lists the all the 11 Thematic Objectives that are covered by the European Structural and Investment Funds (ESIF).

The ESF allocates support for climate action through the so-called ESF secondary theme 01, 'supporting the shift to a low-carbon, resource-efficient economy' <sup>(47)</sup>. In ESF, this allocation is seen in Priority Axes, but only as an aggregate figure. Thus, climate-related support cannot be related to specific Investment Priorities (IPs). Furthermore, in the case of Priority Axes with more than one TO, the allocation for climate action cannot be directly related to specific TOs, either. However, during implementation, it will be possible to obtain a breakdown per IP <sup>(48)</sup>.

Structure of this chapter

This chapter first provides an overview of financial allocations for climate action in the OPs. Thereafter, a more detailed analysis is done of the types of climate action that are included in ESF. Finally, an assessment is provided of the overall manner in which climate action has been addressed in the ESF.

Methodology

In order to extract the financial information, there are a few technical delineations that should be mentioned. First, the financial data that are analysed do not, unless otherwise stated, include support under the Youth Employment Initiative (YEI) and do not consider support for Technical Assistance (TA) <sup>(49)</sup>. Also, as mentioned above, the OPs provide allocations for support of climate action under the specific Priority Axes only. The more detailed analysis of the exact scope of climate action is therefore done in mainly qualitative terms combined with an estimated allocation across TOs.

### 6.1 Overview of financial allocations

Allocations for climate action in ESF

Support under ESF amounts to EUR 82.223 million including TA <sup>(50)</sup>, which corresponds to 18 % of total ESIF support <sup>(51)</sup>. Support under YEI amounts to EUR 6.672 million including TA, which corresponds to 1.5 % of total ESIF support. The ESF provides a relatively modest contribution for climate action, as seen in the table below. However, it is important to note that 1) climate action has been a new challenge in the programming of ESF, and 2) climate action can of course only be

<sup>47</sup> Table 6 of the Commission Implementing Regulation (EU) No 215/2014 of 7 March 2014

<sup>48</sup> Commission Implementing Regulation (EU) No 1011/2014.

<sup>49</sup> There is no specification how this money is allocated per TO, and how this is divided in case of multi-funds (see table 3-1 for clarification of these amounts).

<sup>50</sup> The total support include TA: the support on TA has been allocated to the funds in proportion of the total support from these fund in the programmes.

<sup>51</sup> With data available as of 26 April 2016, 530 OPs, ESIF allocation used: EUR 453.3 billion.

mainstreamed through the TOs that are covered by the ESF. The objectives of those four TOs are not per se explicitly targeted at climate action. The 1.40 % share for climate action should thus be seen from this perspective. Still, it can be concluded overall that, in financial terms, the ESF provides a minor, yet positive contribution to the overall financial allocations for climate action under ESIF, which is 25.2 %.

*Table 6-1 Allocation for climate action in the ESF: MEUR and shares of funds-specific support and of total ESIF support respectively*

Support for climate action in ESF, M EUR	Support for climate action in ESF as percentage of total ESF support including TA	Support for climate action in ESF, percentage of total ESIF support
1,144	1.40	0.25

Observed improvements

When comparing the first official versions of the OPs <sup>(52)</sup> to the approved versions, the allocation is estimated to have increased from a level of only around 0.1 % <sup>(53)</sup> to 1.40 %. This increase is attributable to two key mutually supportive factors: The ISC (Inter-Service Consultation) process and the common methodology. The latter provided specific guidance on how to take climate consideration into account in financial allocations. It thus provided a further concretisation of Article 8 of the Common Provisions Regulation (CPR) through providing the operational and transparent stimulus and signal to Member States to pay attention to opportunities for climate action in the ESF. The former resulted in climate-relevant observations that were often consequently communicated to Member States and taken on board in revised versions of the OPs.

## 6.2 Breakdown of support for climate action

A Member State Perspective

About 28 % (8 out of the 28) of the Member States have not allocated any support for climate action. More than half (56 %) of all OPs that include ESF have allocated ESF support for climate action. This reflects only how OPs were programmed. However, during implementation it is possible to report on the actual financial allocations made for secondary themes. This explicit option will not only provide a clearer picture during implementation of financial allocations made for climate action, but it also introduces an explicitness about the issue of climate action and the related support provided for this. Ultimately, the result may be that financial allocations for secondary theme 01 can come to exceed the 1.4 %. For example, and as it is described later in this section, some OPs actually pay much attention to climate action without making financial allocations for secondary theme 01.

<sup>52</sup> The OP that was the subject of the first ISC of the Commission.

<sup>53</sup> Lack of accuracy in many of the first versions of the OPs, e.g. regarding multifund OPs and inclusion of YEI or not, hinders a direct comparison.

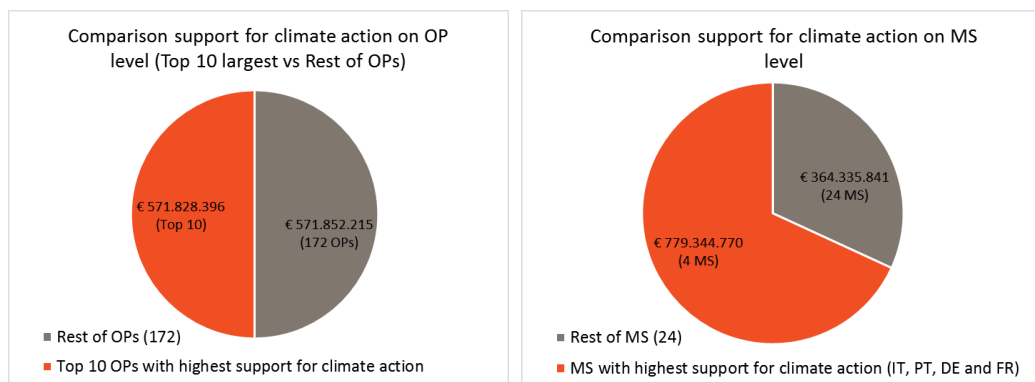
Table 6-2 ESF OPs: total number and OPs with allocations for climate action and OPs with no allocations for climate action <sup>(54)</sup>

Number of OPs (excluding TA programmes)	OPs with allocation for climate action	OPs with no allocation for climate action
182	103	79

Climate action in ESF: an OP perspective

There are differences in shares of support that individual OPs assign for climate action. Thus, It can be inferred from the below figure that the 10 OPs with the highest support for climate action actually account for half of the total climate allocation under ESF. From the Member State perspective, the differences are equally pronounced: The ‘top-four’ Member States (Italy, Portugal, Germany and France) account for more than two thirds (68 %) of the total support for climate action under ESF. However, this high share is influenced by the fact that these countries absorb a relatively high share (37 %) of the overall ESF support. Still, their relative contribution remains above average, as they provide 68 % of the ESF allocation for climate action, but only account for 37 % of the total ESF support.

Figure 6-1 ESF climate allocations for top 10 OPs (OPs that allocate the highest amounts for climate action) (left) and for top 4 Member States (Member States that allocate the highest amounts for climate action) (right) – compared to the amounts provided by the remaining OPs and Member States respectively.



Allocations in Member States and OPs with high shares of support allocated for climate action

The table below provides more details at the individual Member State level. It groups Member States in three categories: 1) those that do not allocate ESF support for climate action at all, 2) those that do allocate ESF support for climate action, and where no individual OP has a climate share of more than 5 %, and 3) those where at least one OP in the Member State allocates more than 5 % of its support for climate-relevant purposes.

<sup>54</sup> This does not include three pure technical assistance programmes and the two pure YEI programmes.



*Table 6-3 Grouping of Member States according to the highest observed share of support for climate action in an individual OP of that Member State and the average share of ESF support allocated for climate action in each Member State (in parenthesis the total number of ESF OPs is provided including 'pure' TA and YEI programmes)*

Countries with no ESF OP with an allocation for climate action	Countries where allocations for climate action are less than 5% of total support and this applies to all OPs			Countries where allocations for climate action in at least one OP is above 5% of total support of the OP		
MS	MS	Weighted average	Highest	MS	Weighted average	Highest
DK (1)	AT (1)	1.7 %	1.7 %	FI (4)	12.3 %	12.3 %
EE (1)	BE (4)	1.5 %	2.0 %	FR (31)	2.2 %	30.8 %
EL (17)	BG (3)	1.5 %	2.1 %	IT (29)	2.6 %	18.6 %
HU (5)	HR (1)	0.3 %	0.3 %	PL (17)	0.5 %	7.0 %
IE (1)	CY (1)	0.0 %	0.0 %	PT (10)	3.0 %	13.5 %
LV (1)	CZ (3)	0.1 %	0.1 %	ES (23)	0.8 %	6.4 %
LT (1)	DE (17)	2.2 %	4.6 %	LU (1)	10.6 %	10.6 %
MT (1)	NL (1)	0.1 %	0.1 %			
	RO (2)	1.2 %	1.4 %			
	SK (2)	1.2 %	1.4 %			
	SI (1)	2.6 %	2.6 %			
	SE (2)	1.1 %	1.1 %			
	UK (6)	0.8 %	3.0 %			

The third category includes the two Member States that have allocated the highest fraction for climate action: Luxembourg and Finland both allocate more than 10 % of ESF support for climate action. Also, three of the 'top-four' countries (Figure 6-1) in terms of absolute support for climate action in ESF are included in the last column of the table: France, Portugal and Italy. They allocate 2.2 %, 3.0 % and 2.6 %, respectively, of their total ESF support for climate action, and they all have at least one individual OP with a substantial share – as high as 30.8 % in France. The middle part of the table includes approximately half of the Member States, and that group also includes Germany, where an average share of 2.2 % can be observed. In Germany, there are no OPs with remarkably high climate shares, but on the other hand, a high number of OPs contribute positively to climate action.

Support for climate action in TOs

The table below provides an overview of how total ESF support and support for climate action under ESF are allocated according to TOs <sup>(55)</sup>. Judging from the financial allocations and in relative terms, the mainstreaming opportunities have been largest in TO11 (institutional capacity) followed by TO10 (education, training and vocational training) and TO8 (employment and labour mobility). In absolute

<sup>55</sup> In the case where a Priority Axis corresponds to multiple TOs, the categorisation of support for climate action according to TO has been assessed by the Consultant.

figures, TO8 and TO10 contribute the most to climate action: EUR 541 million and EUR 457 million respectively. For TO9 and TO11, it is EUR 65 million and EUR 78 million respectively.

Table 6-4 Estimated distribution of financial allocations for climate action over individual TOs, and the estimated share of support under each TO marked for climate action <sup>(56)</sup>

Support under ESF (MEUR)	Share for TO8	Share for TO9	Share for TO10	Share for TO11	Total	Climate action in TO8 (%)	Climate action in TO9 (%)	Climate action in TO10 (%)	Climate action in TO11 (%)
79,451	35 %	27 %	34 %	5 %	100	2.0 %	0.3 %	1.7 %	2.1 %

### TO11 in OPs

Eleven OPs have climate action mainstreamed into TO11. However, the relatively high share for climate action in TO11 is largely influenced by two specific OPs: one in Italy and one in Portugal. Other OPs that mainstream a significant fraction of their support for climate action through TO11 (more than 10 % of total climate action) include OPs in Bulgaria, Cyprus, Italy and Romania.

Table 6-5 List of ESF OPs with support for climate action in TO11

MS	OP CCI	OP Name	Support for climate action in TO11 (EUR)	TO11 support, % of Total climate support
BG	2014BG05M9OP001	Operational Programme Human Resources Development	7,294	0.04 %
BG	2014BG05SFOP001	Operational Programme Good Governance	3,245,350	100 %
CY	2014CY05M9OP001	Employment, Human Capital and Social Cohesion	8,139	16 %
FR	2014FR16M0OP011	Regional programme Martinique Conseil Régional 2014-2020	400,000	5.5 %
IT	2014IT05M2OP001	National Operational Programme on Education	378,552	1.4 %
IT	2014IT05M2OP002	National Operational Programme on Governance, networks, special projects and technical assistance	54,093,333	100 %
IT	2014IT05SFOP016	Regional Operational Programme Basilicata ESF	500,000	25 %
IT	2014IT05SFOP020	Regional Operational Programme Campania ESF	1,200,000	3.9 %
IT	2014IT16M2OP003	National Operational Programme on Legality	1,000,000	50 %
PT	2014PT16M3OP001	Competitiveness and Internationalisation OP	16,231,597	21 %
RO	2014RO05SFOP001	Operational Programme Administrative Capacity	1,235,745	100 %

<sup>56</sup> Technical assistance and YEI programmes (2) are disregarded in this overview.

*Text Box 6-1 Examples of OPs with climate action mainstreamed into TO11*

**National OP on Governance, networks, special projects and technical assistance, ERDF+ESF Italy (2014IT05M2OP002)**

The National OP (ERDF+ESF) aims at improving the administrative capacity of the public administration through e.g. e-learning, implementing the digital agenda and enhancing the effectiveness of justice. The total Union contribution for climate action objectives is EUR 54 million (9.27 %), which is entirely achieved through the ESF Priority Axis 1 “*Development of the administrative and institutional capacity for the modernisation of the public administration*” which is associated with TO11. The climate action related contribution of the OP relates to improving the competences of the public administration through training on evaluation methods (e.g. Strategic Environmental Assessment) and management of projects, focusing on environmental themes such as climate change, sustainable transportation and blue/green economy. Actions foreseen also include promotion and information initiatives for Green Public Procurement principles.

**Competitiveness and Internationalisation OP, ERDF+CF+ESF Portugal (2014PT16M3OP001)**

The contribution to climate action objectives of the overall OP amounts to EUR 659 million, or 17.3 % of the budget. The OP strategy mentions that, in the field of competitiveness, investments that take into account environmental sustainability criteria and climate action will be prioritised (for instance, investments that contribute to reducing GHG emissions in line with the recommendations of the strategic environmental assessment of the OP). Priority Axis 5 titled “*Enhancing institutional capacity of public authorities and stakeholders*”, which relates to TO11, allocates EUR 16.2 million (10 % of the support under Priority Axis 5) for climate action objectives without, however, elaborating on the scope. Potential actions may include training of public administrators for the provision of green skills.

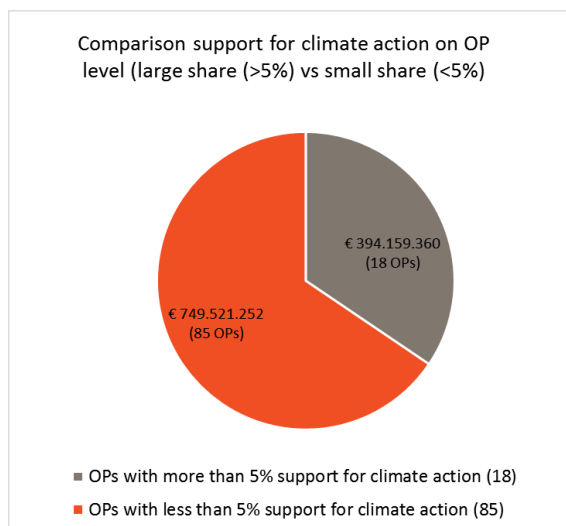
Climate allocations in fund types

Comparing multi-fund OPs to ‘pure’ ESF OPs, it is interesting to note that only 16 % of the ‘pure’ ESF OPs have no allocation for climate action, whereas the corresponding percentage for multi-funds OPs is almost 72 %. This can indicate that when ESF and ERDF/CF are combined into one OP, the possible synergies between the funds with regard to climate action are either not strong or they are not utilised. It could also be an indication that when the ‘multi-fund’ approach is applied, the climate orientation tends to concentrate on ERDF/CF. However, at the same time, it is interesting to note that 6.5 % of the ‘pure’ ESF OPs (6 out of a total of 92 such OPs) have more than 5 % allocated for climate action. In multi-fund OPs, the corresponding share is 12 % (11 OPs). This indicates that, on the one hand, a lower share of multi-fund OPs have ESF allocations for climate action, but on the other hand those that do allocate more support for climate action.

OPs with more than 5% of support allocated for climate action

The 18 OPs which allocate more than 5 % for climate action contribute as much as 34 % of the total climate allocation under ESF in EU. This is shown below:

Figure 6-2 The share of the top-18 OPs in the total ESF support for climate action. Top-18 is defined as OPs with more than 5% of support marked for climate action.



The table below provides an overview of the financial allocations in these ‘top-18’ individual OPs.

Table 6-6 Overview of the 18 OPs with more than 5% of support marked for climate action

Single fund	Title (and CCI)	Share (%)	TO8 (%)	TO9 (%)	TO10 (%)	TO11 (%)
<b>Single fund</b>						
Italy	POR Friuli Venezia Giulia ESF (2014IT05SFOP004)	5.9	71	9	21	
Italy	POR Lazio ESF (2014IT05SFOP005)	13.8	50		50	
Italy	POR Abruzzo ESF (2014IT05SFOP009)	5.3	44		56	
Luxembourg	National (2014LU05SFOP001)	10.6	50		50	
Spain	OP ESF 2014 Region de Murcia (2014ES05SFOP003)	5.7	95	3	2	
Spain	OP ESF 2014 Illes Balears (2014ES05SFOP005)	6.4	100			
<b>Multifund</b>						
Finland	National (2014FI16M2OP001)	12.3	61		39	
France	Centre (2014FR16M0OP003)	6.0			100	
France	Midi-Pyrénées et Garonne (2014FR16M0OP007)	8.3			100	
France	Martinique Conseil Régional (2014FR16M0OP011)	10.7	50		44	5
France	Bourgogne (2014FR16M2OP002)	7.8			100	
France	Bretagne (2014FR16M2OP003)	12.9			100	
France	Rhône Alpes (2014FR16M2OP010)	30.8			100	
Italy	Governance, networks, special projects and technical assistance (2014IT05M2OP002)	18.6				100
Italy	Molise (2014IT16M2OP001)	6.9	100			
Poland	Mazowieckie Voivodeship (2014PL16M2OP007)	7.0	100			
Portugal	Azores (2014PT16M2OP004)	5.8	100			

Single fund	Title (and CCI)	Share (%)	TO8 (%)	TO9 (%)	TO10 (%)	TO11 (%)
Portugal	Competitiveness and Internationalisation OP (2014PT16M3OP001)	13.5	79			21

More than half of them have concentrated their climate-related support on one particular TO.

The table also confirms the generic picture set out in Table 6-4: that TO8 and TO10 are most often considered to be of climate relevance; that TO9 is rarely and less significantly so; and that in certain cases, climate mainstreaming opportunities in TO11 are also identified and utilised.

### 6.3 Climate action in ESF

#### Improvements

As mentioned, it is noteworthy that a modest yet significant increase can be observed in the allocations for climate action when comparing the first <sup>(57)</sup> and the final versions of the OPs: an increase from close to 0 % to 1.40 %. However, it is also relevant to note that mainstreaming improvements can also be observed – when comparing the first and the final versions of the OPs – that do not necessarily translate into financial allocations: Overall, well over 50 % of the ESF OPs have succeeded in elaborating further on climate action from the first through the approved version of the OP. This can be in the form of an explicit reference to the role of climate action at the strategic level and pointing to climate-relevant sectors as particularly promising growth areas to consider. Often, such improvements are observed in relation to actions mentioned under TO8 and TO10. Sectors that are thus referenced include green growth/jobs/skills in general and environment/nature/climate in general. More specific sectors/themes mentioned include: agriculture, eco-buildings, transport, waste management, renewable energy, energy audits, and energy efficiency, as well as climate risks, prevention and preparedness.

#### Mitigation in ESF OPs

Mitigation tends to be more explicitly addressed in the OPs. A review of the individual OPs shows that – apart from the frequent general referencing to green jobs, environment themes, green procurement, green and blue growth, among others – the climate themes that are pointed out are typically renewable energy and energy efficiency, in particular with regard to buildings.

Considering IPs, those that are most often seen as relevant to climate action, and where climate action is most often mentioned – either as part of the results or objectives or as part of the actions – include (note that the table also includes mention of adaptation where relevant):

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<sup>57</sup> Meaning the first version of the OP that was subject to an ISC in the Commission.

Table 6-7 Overview of examples of climate-relevant contents of IPs where climate action is mentioned

IP	Key scope	Examples from OPs
8i	Access to employment for job-seekers and inactive people, including the long-term unemployed and people far from the labour market, also through local employment initiatives and support for labour mobility	<p>Competences in the fields of energy efficiency, green building and green growth are foreseen</p> <p>Incentives for enterprises hiring unemployed in emerging sectors are foreseen</p> <p>Mentioning of the job opportunities of the green economy</p> <p>Training of employment seekers to include environmental awareness or modules on conservation of environmental quality</p> <p>Training initiatives to create employment or adapt professional skills in strategic innovative sectors, such as the green and blue economy and risk prevention and management</p> <p>Actions aimed at hiring unemployed people for providing services in Natura 2000 network areas</p>
8ii	Sustainable integration of young people into the labour market, in particular those not in employment, education or training, including young people at risk of social exclusion and young people from marginalised communities, including through the implementation of the Youth Guarantee	<p>The potentials offered through the specific event called the 'environmental gap year' are referred to</p> <p>Mentioning of the potentials of emerging sectors such as the green and blue economy</p> <p>Mentioned training opportunities include low-carbon and disaster prevention</p> <p>Incentives for self-employment in areas such as energy efficiency equipment, low-carbon vehicles, solutions for renewable energy, biomass, green chemistry.</p>
8v	Adaptation of workers, enterprises and entrepreneurs to change	<p>Environmental education and education for sustainable development</p> <p>Strategic actions to rationalize and improve efficiency of sectors, such as transport, in line with the EC Communication Green Employment.</p>
9i	Active inclusion, including with a view to promoting equal opportunities and active participation, and improving employability	<p>Training of people at risk of social exclusion to cover environmental awareness</p> <p>National qualifications catalogue to be updated to include environment and climate change specialisations</p> <p>Help people at risk of social exclusion to access volunteering or job placements in low-carbon sectors</p>
10i	Reducing and preventing early school-leaving and promoting equal access to good quality early-childhood, primary and secondary education including formal, non-formal and informal learning pathways for reintegrating into education and training	<p>Vocational training in the field of energy efficiency and renewables</p>
10ii	Improving the quality and efficiency of, and access to, tertiary and equivalent education with a view to increasing participation and attainment levels, especially for disadvantaged groups	<p>A priority to projects that focus on green economy themes</p> <p>Training /education interventions to focus on: climate change, hydrogeological risk prevention, risk monitoring and prevention, mountain areas resources management</p> <p>Risk prevention and management, climate change and green economy are mentioned as examples of themes to be supported.</p>
10iii	Enhancing equal access to lifelong learning for all age groups in formal, non-formal and informal settings, upgrading the knowledge, skills and competences of the workforce, and promoting flexible learning pathways	<p>Lifelong learning to address forestry, alpine environment, hydrogeological risk and energy</p> <p>Risk prevention and management, climate change and green economy are mentioned as examples of themes to be supported.</p>

IP	Key scope	Examples from OPs
	including through career guidance and validation of acquired competences	<p>Results mentioned include integrating competences in the adult population with lower education levels, in the field of sustainable development, energy efficiency and green economy</p> <p>Themes covered include adaptation, renewable energy, climate friendly products, water and wastewater management and water savings.</p> <p>Work-based education and training services, e.g. in the field of climate change mitigation</p>
10iv	Improving the labour market relevance of education and training systems, facilitating the transition from education to work, and strengthening vocational education and training systems and their quality, including through mechanisms for skills anticipation, adaptation of curricula and the establishment and development of work-based learning systems, including dual learning systems and apprenticeship schemes.	<p>Specific training interventions on green-building, sustainable architecture and RES to support green/blue economy, and vocational/technical education interventions focused on green jobs</p> <p>Energy turn-around and climate protection mentioned specifically and explicitly as results</p> <p>Employment of innovation assistants in environmental management</p> <p>Themes mentioned include environment, energy management/efficiency, renewable energy and risk prevention and management</p> <p>Results include increased competences and training/education participation fostering green growth</p> <p>Innovative actions for initial vocational training in green jobs</p> <p>Creation of tertiary university pathways (master degree courses) in climate-relevant areas and scholarships for post-tertiary training courses</p> <p>Promoting partnerships between research and the productive sector to support the transfer of production methods with low energy consumption and low GHG emissions</p> <p>Introducing innovative topics in the educational curricula of vocational and higher technical education and training, regarding sustainable development, and the prevention of environmental risk and climate change</p>
11i	Investment in institutional capacity and in the efficiency of public administrations and public services at the national, regional and local levels with a view to reforms, better regulation and good governance	<p>Enhancing competences and institutional capacity of the public administration staff on climate-related issues, such as tackling climate change, sustainable mobility, and the blue and green economy, in order to promote green public procurement and to improve the quality of environmental assessments.</p>

The above table also highlights the few instances where climate issues are mentioned in regard to selection criteria or expected results. This happens on very few occasions and is most pronounced in the case of TO10. In general, the table shows that climate action tends to be most concretely formulated in TO10. In supplement to the above table, it should be noted that some OPs are rather elaborate and innovative as it regards how the OP can contribute to climate action. A few examples are shown below.

Text Box 6-2 Examples of innovative approaches in relation to climate action

**Example 1 – Employment, Training and Education ESF OP, Spain (2014ES05SFOP002)**

The OP (PA1, IP8v) will support programmes for SME managers who need to improve their skills in themes associated with the low-carbon economy and the efficient management of natural resources. Building up the climate-related skills of managers increases the chances that their decisions include explicit consideration of environmental impacts and climate change.

**Example 2 – Good Governance ESF OP, Bulgaria (2014BG05SFOP001)**

The overall scope of the OP is to modernise state administration and to achieve fair and qualitative justice. It addresses climate policy-related activities through integrating them in a governance OP for the strengthening of the administration and the judiciary. The OP will provide trainings for the administration and judiciary in “green” initiatives, and invest in energy efficiency during implementation of e-governance and e-judiciary. It will stimulate resource efficiency (no paper use, use of recycled paper), push the administration to introduce green public procurement, and support the integration of climate policy in national development policies. Finally, the OP will also contribute to adaptation through providing training for administration in risk management.

**Example 3 – Campania Regional ESF OP, Italy (2014IT05SFOP020)**

The OP strengthens the links between the education system and the productive system by aiming to: 1. Strengthen and improve the quality of the tertiary non-university education system in cooperation with the productive system, in priority areas such as energy, environment and green chemistry, smart technology, sustainable tourism and construction, biotechnology, health and food; 2. Promoting partnerships among universities, the productive system and research bodies to support the transfer of production methods with low energy consumption and low greenhouse gas emissions, especially in those companies with high environmental impact, such as chemicals, steel mills, ports etc., and in conjunction with ERDF interventions. The same OP foresees the creation of tertiary university pathways (master degree courses) in climate-relevant areas; the introduction of innovative topics such as sustainable development, and the prevention of environmental risk and climate change in the educational curricula of vocational and higher technical education and training; apprenticeships in green sectors; and training of professionals with specific expertise in the management of environmental risks and the green economy.

Adaptation in ESF OPs

In ESF OPs, support for climate action is only determined at the Priority Axis level, and this is done through marking certain funds as ‘supporting the shift to a low-carbon, resource-efficient economy’ as a secondary theme. The wording of the secondary theme indicates a focus on mitigation in contrast to adaptation. This indicative focus is also confirmed when reviewing the climate-relevant contents of the individual OPs. There are only few instances with an explicit mention of ESF being supportive to climate change adaptation efforts, and adaptation issues are sometimes only pointed to at the strategic or generic level. This can be observed from Table 6-7.

There are, however, a few cases where the reference to climate change adaptation is more explicit and operational. Such concrete examples are provided below:



*Table 6-8 Examples of adaptation-relevant contents of IPs where adaptation is mentioned*

IP	Key scope	Examples from OPs
8i	Access to employment for job-seekers and inactive people, including the long-term unemployed and people far from the labour market, also through local employment initiatives and support for labour mobility	An OP (2014ES05SFOP009) indirectly addresses adaptation through training initiatives and professional certification for prevention and effective response to forest fires, in the context of an emergency system developed for the protection of the environment. Although these actions are designed from a security perspective, they also have an important impact on climate change adaptation.  Another OP (2014IT05SFOP003) points to the need to increase risk management skills.
10ii	Improving the quality and efficiency of, and access to, tertiary and equivalent education with a view to increasing participation and attainment levels, especially for disadvantaged groups	An OP (2014IT05SFOP011) with a relatively modest financial share for climate action (1.3 %) provides strong and detailed references to climate change adaptation, in particular in relation to IP10. In IP10ii, training and education interventions are to focus on climate change, hydrogeological risk prevention, risk monitoring and prevention and management of resources in mountain areas. Actions identified include training for high-skilled people to facilitate the transfer and adoption of a low-impact production system (focusing on mitigation).
10iii	Enhancing equal access to lifelong learning for all age groups in formal, non-formal and informal settings, upgrading the knowledge, skills and competences of the workforce, and promoting flexible learning pathways including through career guidance and validation of acquired competences	The above mentioned OP (2014IT05SFOP011), with the relatively modest financial share for climate action (1.3 %), provides strong and detailed references to themes such as forestry, alpine environment, hydrogeological risks and energy in the context of lifelong learning (IP10iii).
10iv	Improving the labour market relevance of education and training systems, facilitating the transition from education to work, and strengthening vocational education and training systems and their quality, including through mechanisms for skills anticipation, adaptation of curricula and the establishment and development of work-based learning systems, including dual learning systems and apprenticeship schemes	An OP (2014IT05SFOP007) makes an explicit mention of risk prevention and management, together with mitigation themes, such as energy management and efficiency and renewable energy.
11i	Investment in institutional capacity and in the efficiency of public administrations and public services at the national, regional and local levels with a view to reforms, better regulation and good governance	An OP (2014BG05SFOP001) includes in the description of actions capacity building on risk prevention and management with a focus on climate change.

Climate action inclusion in ESF OPs

To assess how and the extent to which climate action is addressed in the ESF OPs, a comparative analysis was done across all OPs <sup>(58)</sup>. It points to the following main observations:

- › Climate action is considered in many ESF OPs. In many cases, climate action is mentioned at the strategic level and, in quite a few cases, also as part of the description of a particular Priority Axis. However, in many cases, the

<sup>58</sup> This analysis is based on the database that summarises the key contents of the OPs.

description remains fairly generic by referencing (e.g. green jobs, blue and green economy and low-carbon economy).

- › There is not – when comparing across OPs – a clear connection between the extent to which climate action is explicitly covered in the OP (including in the description of objectives and results and/or actions) – and the share of support allocated for climate action. This particularly applies when comparing OPs with smaller allocations (i.e. below a threshold of 5 %). Some of these OPs are quite explicit and delineated in the way they deal with climate action, whereas others only refer to climate action at the overall strategic level while still allocating support for it.

Thus, there are OPs with a small allocation for climate action and a detailed description of climate actions and results, and there are OPs with a high climate allocation but without detailed elaboration on the scope. For example, an OP <sup>(59)</sup> that allocates as much as 10 % for climate action provides little detail on its scope <sup>(60)</sup>. It does, however, recognise at the strategic level that the shift towards a greener economy is likely to lead to additional green jobs and growth in green sectors that may in turn contribute to climate-oriented objectives, and therefore includes support for education projects related to green jobs.

*Text Box 6-3 Example of an OP with a small climate allocation yet detailed climate elaboration*

An OP with a modest financial allocation for climate action (1.9 %) provides a clear and consistent vision on the scope of climate action (National OP ESF Employment and Social Inclusion, France - 2014FR05SFOP001). It considers in the needs assessment the necessity of enhancing knowledge among workers about green skills needs, and it translates this into clear expected results in terms of contributions to reduced energy use, increased share of renewable energy and reduced GHG emissions. In TO8, it contains an explicit mention of green growth sectors (including thermal renovation, renewable energy and environmental engineering). It includes, in horizontal principles, a preference for actions concerning business start-ups in green economy and energy transition.

## 6.4 Key conclusions

The analysis above has pointed to the following key conclusions:

It is possible to mainstream climate action into the European Social Fund. Many Member States have made efforts in this direction, possibly with inspiration from a range of sources including the dialogue with the Commission (position papers and feedback resulting from the Inter-Service Consultation). This is reflected in a positive financial allocation in the European Social Fund for climate action, and it is

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<sup>59</sup> (OP ESF, Luxembourg - 2014LU05SFOP001)

<sup>60</sup> It should be noted that there is no legal requirement for detailing this,

reflected in that climate action is taken on-board qualitatively, particularly in the description of actions.

The secondary theme 01, 'supporting the shift to a low-carbon, resource-efficient economy', of the common methodology is likely to have played a supportive role in this: it provides the opportunity to count climate efforts under the European Social Fund on par with climate efforts in other funds.

There are significant variations in the ways that Operational Programmes have taken climate action on board. This ranges, for example, from situations with little concrete mention of climate-related issues *together* with sometimes substantial financial allocations for climate action, and to situations with well elaborated rationales for climate action combined with zero or very modest allocations for it.

While 56 % of all the Operational Programmes do mark some of the support for climate action, as many as 44 % do not. Along the same line, 71 % of the Member States do provide some allocation for climate action, while 29 % do not. Clearly, these differences reflect differences in overall programmatic approach; at the programme and Member State levels. However, it can also be an indication of an unharvested potential for further climate mainstreaming in the European Social Fund. It is important to note, however, that it will be possible to follow financial allocations at the Investment Priority level, and for Managing Authorities to report on possible allocations made for secondary theme 01 during implementation.

Thus, the analyses of the Operational Programmes show that there is indeed an awareness of climate action, and that this also translates into explicit climate-relevant considerations and into financial allocations. That said however the analysis also points to issues that are worth reflecting on in regard to implementation of the programmes and in regard to future programming:

**On readiness of Member States and Managing Authorities:** Climate action is not a key theme of the European Social Fund and, compared to previous programming periods, the aspiration to pay more explicit attention to climate action is new in this programming period. Comparing the first versions of the Operational Programmes to the final versions, financial allocations have increased for climate action and climate action has become more explicitly covered in many programmes. Possibly, the two key drivers behind this development are: a) the dialogue with the Commission leading up to the final and approved Operational Programme, and b) the common methodology's opportunity to mark a specific allocation for secondary theme 01.

**On programme implementation:** It is noteworthy that more than 40 % of the Operational Programmes have not made use of secondary theme 01. Further, there are quite significant variations and asymmetries across programmes in the way they have taken on-board climate action. Only a few programmes have marked an allocation for climate action under Thematic Objective 11 (Technical Assistance). Following the implementation of these programmes could inform on whether there is possibly wider potential for climate action in this Thematic Objective. Following the implementation of the programmes on a wider scale carefully could also be considered, with a focus on how climate aspirations set

forth in the programmes are actually delivered on and on the realised allocations made for climate action. Such a targeted monitoring can provide inputs for the next programming period; in particular with a view to issuing guidance material that includes concrete best-practice examples, and which could stimulate a better integration of climate action issues in specific objectives, results and/or considerations on the principles for selection.

**On climate markers:** The analysis of the Operational Programmes demonstrates that there is not always a clear link between the size of the financial allocation made for secondary theme 01 and the extent to which climate action is explicitly addressed in the Priority Axis in question. Neither is there any legal requirement for such explicit links. This approach aligns well with the philosophy and mission of the European Social Fund. At the core of the mission of the European Social Fund lies such themes as employment, social cohesion, education and skills. As a reflection thereof, the ESF covers Thematic Objectives 8, 9, 10 and 11 (employment & labour mobility, social cohesion & discrimination, education & training, technical assistance respectively), and the regulation refers explicitly to climate action only in Article 3.2(a), which can be seen as the secondary theme's reference point in the funds specific regulation. However, strengthening the tie between the applied markers and the contents of the Operational Programmes may be considered. This could aim to ensure that the programmes, when applying secondary theme 01, links the climate allocation to a specific Thematic Objective or, even more detailed: to an Investment Priority. This facilitates a more targeted approach up to approval of the Operational Programme and a more targeted monitoring of the implementation of programmes. Associating a financial allocation for climate action with a requirement or a recommendation to accompany such an allocation with specific expected climate-oriented results could also be considered. Last, the wording of secondary theme 01 does not include climate change adaptation. If climate change adaptation was introduced, this would align well with Article 3.2 (a) of the European Social Fund regulation. It would signal to Member States and Managing Authorities that climate change mitigation and climate change adaptation are themes that are both of potential relevance when considering funds allocation for secondary theme 01.

## 7 European Agricultural Fund for Rural Development

Mainstreaming opportunities in EAFRD

The total support allocated to European Agricultural Fund for Rural Development (EAFRD) amounts to more than EUR 56.3 billion, and 57.1 % of this is marked for climate action.

*Table 7-1 Allocation for climate action in EAFRD: MEUR and shares of funds-specific support and of total ESIF support respectively*

Support for climate action in EAFRD, M EUR	Support for climate action in EAFRD as percentage of total EAFRD support	Support for climate action in EAFRD as percentage of total ESIF support for climate action
56,305	57.1	12.5

Support given under the EAFRD shall contribute to one or more of the six Union Priorities (UPs) set out in Article 5 of the EAFRD Regulation). As regards the tracking of climate support, the system of UPs, which can be further divided into Focus Areas (FAs), resembles that of Intervention Fields (IFs) applied for tracking under the European Regional Development Fund (ERDF) and the Cohesion Fund (CF). It is, however, much coarser, as it includes just ten FAs with climate relevance (i.e. with a climate marker of 40% or 100%), whereas for the ERDF, 34 IFs carry a climate marker of 40% or 100%<sup>61</sup>). This difference further entails that FAs are much broader in scope than individual IFs, and any observations based on the tracking of support should be understood with this limitation in mind.

The UPs and FAs are defined in the EAFRD Regulation under article 5, and a subset of these are defined as to be climate-relevant (see Commission Implementing Regulation EU (No) 215/2014). The climate-relevant UPs and FAs are included in Table 7-2 below. The UPs are listed in chapter 2.5.1 and repeated below:

*Table 7-2 Overview of main UPs and associated FAs, and their link to TOs.*

UP/FA	Union Priorities (art. 5 )	TO4	TO5	TO6	CLLD
3	Promoting food chain organisation, including processing and marketing of agricultural products, animal welfare and risk management in agriculture				
3a	Improving competitiveness of primary producers by better integrating them into the agri-food chain through quality schemes, adding value to agricultural products, promotion in local markets and short supply circuits, producer groups and organisations and inter-branch organisations;				
3b	supporting farm risk prevention and management		x		
4	Restoring, preserving and enhancing ecosystems related to agriculture and forestry				

<sup>61</sup> These 34 IFs are identified from a total of more than 100 specific IFs. Furthermore, other IFs with a marker of 0% can increase the marker to 40%, if the support is allocated under Thematic Objective 4 (low carbon economy) or Thematic Objective 5 (climate change adaptation and risk management)

UP/FA	Union Priorities (art. 5 )	TO4	TO5	TO6	CLLD
4a	Restoring, preserving and enhancing biodiversity, including in Natura 2000 areas, and in areas facing natural or other specific constraints, and high nature value farming, as well as the state of European landscapes;			x	
4b	Improving water management, including fertiliser and pesticide management;			x	
4c	Preventing soil erosion and improving soil management.			x	
UP5	Promoting resource efficiency and supporting the shift towards a low-carbon and climate-resilient economy in agriculture, food and forestry sectors				
5a	Increasing efficiency in water use by agriculture;	x			
5b	Increasing efficiency in energy use in agriculture and food processing;	x			
5c	Facilitating the supply and use of renewable sources of energy, of by-products, wastes and residues and of other non-food raw material, for the purposes of the bio-economy;	x			
5d	Reducing greenhouse gas and ammonia emissions from agriculture;	x			
5e	Fostering carbon conservation and sequestration in agriculture and forestry;	x			
UP6	Promoting social inclusion, poverty reduction and economic development in rural areas				
6a	Facilitating diversification, creation and development of small enterprises, as well as job creation;				
6b	Fostering local development in rural areas;				x

The main climate-relevant UPs are 4 and 5. While adaptation actions can be achieved under both UP4 and UP5, mitigation is mainly found under UP5.

Structure of this chapter

This chapter first provides an overview of the financial allocations to the UPs and FAs by each Member State under the EAFRD. Secondly, it presents a breakdown of the financial allocation by UP, FA and measure. Thirdly, the chapter presents a detailed assessment of how and which type of climate action has been included in the EAFRD, focusing on adaptation and mitigation in turn.

Methodology

Programmes under EAFRD are called Rural Development Programmes (RDPs). In total, 118 RDPs have been approved, 117 of which are included in this analysis <sup>(62)</sup>. RDPs have been assessed for contribution of measures to UPs and FAs, and this work is the primary basis for the following sections on EAFRD and climate action.

Table 7-3 Overview of Member States with regional, national and national framework RDPs, respectively.

Type	Regional (>1 per MS)	National (1 per MS)	National Framework
Member States	IT, ES, PT, DE, FR, UK, FI, BE	DK, SE, EE, LT, LV, PL, CZ, SI, AT, SL, HR, RO, BG, GR, CY, ML, LU, NL, IE	ES, FR, DE

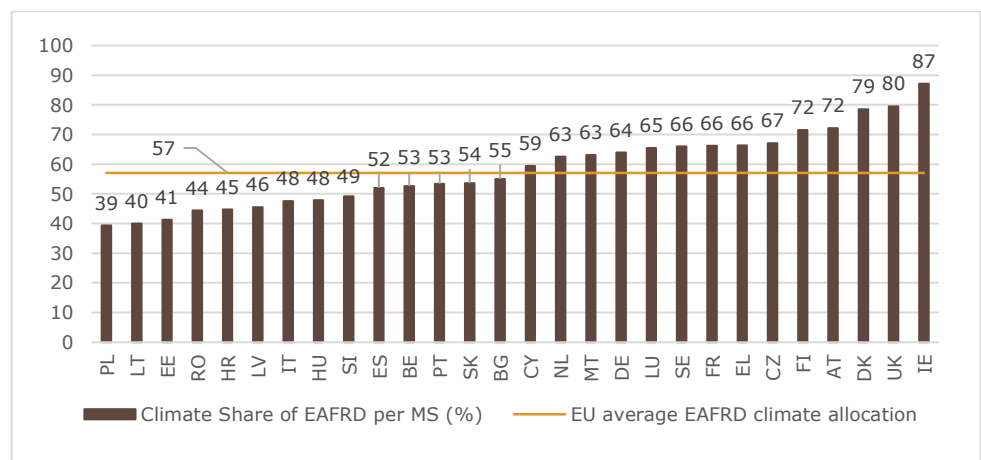
<sup>62</sup> The French rural network programme is not included.

## 7.1 Overview of financial allocations

Total EAFRD support across all the Member States amount to EUR 98,619 million, while the amount designated for climate action amount to EUR 56,305 million, or 57 % of total funds. Member State-level allocations for EAFRD range from a low of 39 % (Poland) to a high of 87 % (Ireland).

Comparing the first versions <sup>(63)</sup> of the RDPs to approved versions, only a slight increase in climate-relevant financial allocation is found, as the overall climate share went from 56.88 % to 57.09 %. In the first versions, support was often not allocated at the FA level and not split into measures, but only given at the UP level.

Figure 7-1 Climate allocation by Member State and Member State average allocation



Climate action support across Member States and Focus Area

While the total percentage allocated by each Member State to climate actions varies, a number of similarities can be found. In all of the Member States, UP4 is allocated the bulk of the total support, and in 16 of the Member States, more than 75 % of the total support for climate action is allocated to UP4, which is actually more than 50 % of the total support for climate action in the given Member States in 11 cases. Except for Lithuania, no country has distinguished between UP4 FAs a, b, and c, but rather allocated one lump-sum amount for UP4. Contrary to this, UP5 – which covers the main mitigation measures in agriculture – is generally allocated a much smaller fraction of the total funding; only Belgium, Bulgaria, Ireland, Portugal, and Romania allocate more than 10 % of the total EAFRD funding to UP5, and 10 Member States allocate 5 % or less of the total funding to UP5, with Czech Republic, Netherlands and Slovenia allocating none.

## 7.2 Breakdown of support

The EUR 56,305 million designated for climate action can be broken down by UP, FA and measure. The two most important UPs (UP4 and UP5) account for more than 90 % of the support allocated for climate action. UP4 alone accounts for more than 75 % of the total support for climate action. The distribution of the financial allocation to climate action over UPs and FAs is illustrated in Table 7-4.

<sup>63</sup> The versions that was subject to the first ISC of the Commission (ISC1)

Table 7-4 Allocation for climate action by UPs and FAs.

UP	3	4			5				6	
Total (%)	1.9	77.0			13.5				7.5	
FA	b	a	b	c	a	b	c	d	e	b
Total (%)	1.9	26.0	25.5	25.6	3.9	1.4	1.4	2.5	4.4	7.5
Climate relevance										
Adaptation	P	P	P	P	P					P
Mitigation		S	S	S		P	P	P	P	

For the purpose of this chapter, the methodology used for differentiation between adaptation and mitigation is based on the text of the Regulation (1305/2013) and not the actual action foreseen. *Mitigation focus areas* are understood to be FAs that predominantly target emission of greenhouse gasses or sequestration of carbon, either directly (5d and e) or indirectly (5b and c). *Adaptation focus areas* are understood as measures not targeted at emissions of GHGs or carbon sequestration, but targeted at increasing the resilience of the agricultural system. Finally, *adaptation and mitigation focus areas* are those areas where both mitigation and adaption benefits can be targeted, based on the formulation in the Regulation, and where the actual adaptation or mitigation effect will depend on the actual action and the measures applied to achieve this. The above indication of adaptation and mitigation FAs should thus be understood as indicating the predominant focus of the FA, but recognizing that, in some instances, co-benefits for either adaptation or mitigation can follow. It must also be recognized, however, that the actual adaptation and/or mitigation benefit resulting from FAs will depend to a large extent on the actual measures programmed under each of these. In subsequent sections concerning the analysis at the measure level, measures are classified as either *adaptation*, *mitigation* or “*both*” to reflect this situation.

Allocation of support to adaptation or mitigation is thus at fund level as shown below:

Table 7-5 Climate action (MEUR) and percentage.

	Climate action (MEUR)	Climate action (percentage)
Mitigation	5,450.6	9.7
Adaptation	7,478.8	13.3
Adaptation & Mitigation	43,375.9	77.0

Support by Union Priority and Focus Area

Support is heavily skewed towards UP4, which is allocated 77 % of all support for climate action, while only 13.5 % is allocated to UP5. The remaining UPs, UP3 and UP6, are allocated 1.9 % and 7.5 %, respectively. Taking into account that mitigation takes place mainly under UP5, this indicates that funding is primarily focused on adaptation and less on mitigation.

Table 7-6 Percentage allocation on UP/FA of support, by Member State.



	UP3	UP4			UP5					UP6	TOT
Country	3b	4a	4b	4c	5a	5b	5c	5d	5e	6b	Σ
AT	>0	21.6	21.6	21.6	0.1	0.1	2.6	0.3	>0	4.1	72
BE	0.2	11.3	11.3	11.3	-	4.3	0.3	10.1	0.4	3.3	53
BG	>0	10.4	10.4	10.4	3.4	3.9	4.0	1.8	1.1	9.6	55
CY	-	14.9	14.9	14.9	5.9	0.1	1.6	0.8	1.9	4.3	59
CZ	-	21.4	21.4	21.4	-	-	0.4	-	0.3	2.0	67
DE	1.4	16.2	16.2	16.2	0.1	0.8	0.2	0.9	2.8	9.2	64
DK	-	22.6	22.6	22.6	-	1.0	3.7	3.1	-	2.8	79
EE	>0	11.6	11.6	11.6	>0	0.9	1.5	>0	0.1	3.9	41
EL	0.3	14.0	14.0	14.0	10.9	0.2	1.1	5.1	2.9	3.7	66
ES	0.1	11.9	11.9	11.9	4.3	0.5	0.6	0.5	5.8	4.5	52
FI	-	22.4	22.4	22.4	-	0.2	0.8	0.7	0.1	2.5	72
FR	2.2	18.7	18.7	18.7	1.6	0.8	0.7	0.1	1.4	3.5	66
HR	2.9	9.2	9.2	9.2	-	-	3.9	3.7	0.7	5.7	45
HU	1.1	9.3	9.3	9.3	1.0	8.9	0.4	0.5	3.6	4.7	48
IE	0.5	24.2	24.2	24.2	-	0.5	0.1	8.6	1.9	2.9	87
IT	3.2	11.5	11.5	11.5	2.3	0.2	0.9	0.6	3.1	2.7	48
LT	0.4	18.8	1.9	6.0	-	-	2.5	1.9	4.5	3.9	40
LU	-	20.6	20.6	20.6	-	-	-	1.0	-	2.7	65
LV	0.4	12.8	12.8	12.8	-	0.7	1.0	1.0	2.0	2.0	46
MT	0.8	13.5	13.5	13.5	8.9	1.1	6.6	1.3	1.5	2.5	63
NL	1.0	19.6	19.6	19.6	-	-	-	-	-	2.6	63
PL	1.2	10.3	10.3	10.3	-	-	-	-	2.2	5.1	39
PT	0.6	9.4	9.4	9.4	8.6	1.5	0.7	0.1	9.6	4.1	53
RO	0.8	9.8	9.8	9.8	4.7	-	>0	4.7	1.3	3.4	44
SE	-	20.1	20.1	20.1	-	-	0.7	1.1	-	3.9	66
SI	-	17.2	17.2	17.2	-	-	-	-	-	2.0	54
SK	1.4	14.4	14.4	14.4	-	-	0.9	-	>0	3.8	49
UK	0.1	24.4	24.4	24.4	0.2	0.3	0.6	1.0	2.6	1.7	80
Total	1.1	14.8	14.5	14.6	2.2	0.8	0.8	1.4	2.5	4.3	57

Support per measure

As seen from Table 7-7, two measures, M10 and M13, receive the bulk of the support for climate action: 29 % of all climate funding is allocated to M10 (Agri-environment-climate measure) (of this, 95 % is allocated to UP4), while 28 % of all climate funding is allocated to M13 (Payments to areas facing natural or other specific constraints) (98 % of which is allocated UP4). This means that about 55 % of all climate action support (for all UPs and all measures) is allocated to UP4 under just two measures, M10 and M13.

Table 7-7 Overview of allocation of support for each measure by UPs and FAs.

	Article	UP3			UP4			UP5					UP6	TOT
		3b	4a	4b	4c	5a	5b	5c	5d	5e	6b	∑		
M01	14	>0	0.2	0.2	0.2	>0	>0	>0	0.1	>0	>0	0.8		
M02	15	>0	0.2	0.2	0.2	>0	>0	>0	>0	>0	>0	0.7		
M04	17	>0	1.0	1.0	1.0	3.7	1.3	0.5	1.2	0.1	>0	9.7		
M05	18	0.7	-	-	-	-	-	-	-	-	-	0.7		
M06	19	-	-	-	-	-	>0	0.3	>0	>0	>0	0.3		
M07	20	-	0.5	0.5	0.5	-	>0	0.3	>0	-	2.5	4.2		
M08	21-26	>0	1.3	1.3	1.3	-	>0	0.2	>0	3.2	-	7.4		
M10	28	-	9.2	9.2	9.2	>0	-	-	0.7	0.6	-	28.9		
M11	29	-	3.6	3.5	3.6	-	-	-	0.4	>0	-	11.1		
M12	30	-	0.4	0.4	0.4	-	-	-	-	>0	-	1.1		
M13	31	-	9.3	9.0	9.0	-	-	-	-	0.3	0.1	27.7		
M15	34	-	0.2	0.2	0.2	-	-	-	-	>0	-	0.5		
M16	35	>0	0.1	0.1	0.1	0.1	>0	0.1	>0	0.1	0.1	0.9		
M17	36	1.2	-	-	-	-	-	-	-	-	-	1.2		
M19	38	-	-	-	-	-	-	-	-	-	4.8	4.8		
<b>Total</b>		1.9	26.0	25.5	25.6	3.9	1.4	1.4	2.5	4.4	7.5	100.0		

In Table 7-8, the primary and secondary focus of each FA is shown. It can be seen that adaptation activities should be programmed under FAs 3b, 5a and 6b, focusing primarily on water and, secondly, under 4a-c, focusing on soil and biodiversity. Mitigation activities are found in FAs 5b-5e, focusing on reducing GHG emissions from agricultural activities and sequestering carbon in agriculture and forestry. Taking such a perspective, 10 % of all climate funding is allocated to FA's, which explicitly concern mitigation (5b, 5c, 5d, 5e), while 13.3 % is allocated to FAS that explicitly concern adaptation. The remaining 76 % is allocated to FA's under which actions can be targeted at both adaptation and mitigation, and wherein the exact benefit will depend on the measure programmed, though the primary focus is on environment and ecosystem effects that will indirectly have adaptation benefits.

Combining the information from Table 7-7 and Table 7-8, it can be seen that the bulk of the funding for mitigation activities are found within M08 (Investments in forest area development and improvement of the viability of forests), and M04 (Investments in physical assets). M10 (Agri-environment-climate) also contributes some support for adaption. Furthermore, M13 (Payments to areas facing natural or other specific constraints) contributes to support for climate action. The remainder of the funding is split between a large number of measures, all receiving very little funding, e.g. M01 (Knowledge Transfer), M02 (Advisory services), M06 (Farm and Business development), and M16 (Co-operation).

Concerning the focus of the respective FAs, they each target different aspects of environment and climate issues, such as water (4b, 5a), soil (4a, 4c), biodiversity (4a) and GHG reduction (5b-5e). The distinction between the different areas and the respective FAs can be seen below in Table 7-8. Similarly, while all FAs target

agriculture, only a handful of these (FA 4a-c, 5c and 5e) target forests. As such, certain measures become more relevant than others under each FA, as they can contribute to the actions under the given climate-relevant FA. In the final column, the allocation of most programmed measures to the respective FAs are given, highlighting the link between measure and FA.

*Table 7-8 Overview of topic and sectoral coverage, as well as the financial allocation and the key measures to each of the 10 climate-relevant FA's.*

UP	FA	Regulation 1305/2013, article 5:	Topic						Sector		EU level climate allocation		Key measures
			Water	Soil	Biodiversity	Livestock and manure	Low-carbon	GHG reduction	Forests	Agriculture	%	M EUR	
3	b	supporting farm risk prevention and management							X		1.9	1,094.3	M5, M17
4	a	restoring, preserving and enhancing biodiversity, ...	X	X	X				X	X	26.0	14,617.9	M10, M11, M13
	b	improving water management, including fertiliser and pesticide management	X			X			X	X	25.5	14,345.5	
	c	preventing soil erosion and improving soil management		X		X			X	X	25.6	14,412.5	
5	a	increasing efficiency in water use by agriculture	X							X	3.9	2,170.7	M04
	b	increasing efficiency in energy use in agriculture and food processing					X	X		X	1.4	782.9	M04
	c	facilitating the supply and use of renewable sources of energy, of by-products, wastes and residues and of other non-food raw material, for the purposes of the bio-economy				X	X	X	X	X	1.4	791.1	M04, M06, M07
	d	reducing greenhouse gas and ammonia emissions from agriculture		X		X		X		X	2.5	1,382.0	M04, M10
	e	fostering carbon conservation and sequestration in agriculture and forestry		X				X	X	X	4.4	2,494.7	M08, M10, M13
6	b	fostering local development in rural areas					X			X	7.5	4,213.8	M07, M19

### 7.3 Climate action in EAFRD

The purpose of the coming section and sub-sections is to give an overview of the action foreseen under each measure, as explained in the programmes by the managing authorities. The key types of mitigation and adaptation actions included under the RDPs and the measures programmed to achieve these are further outlined in the sections below. Furthermore, to the extent possible, it will identify and evaluate the foreseen climate and mitigation benefits of the measures, based on information given on sub-measures and actions, if available. For the purpose of

this analysis, climate action <sup>(64)</sup> in RDPs is considered to be made possible by two main enablers: a measure and its support. The design and implementation of a measure (and relevant sub-measures and operations) that promote certain actions by beneficiaries within the territory covered by a certain RDP is critical, but the support that will incentivise and compensate beneficiaries will influence how many farmers or other land owners carry out the action in reality (and to what) extent.

Adaptation and mitigation action in Agricultural and Forest sectors as observed in the Rural Development Programme's measure descriptions

Chapter 8 of the RDPs provides information on the measures and sub-measures under each measure. Often, the managing authorities have listed specific sub-measures and included a few lines of text on the actions that are intended or qualify for support. Section 7.3 of this report is based on these measure descriptions, and is dependent on the level of detail and type of information provided therein.

The allocation of support at UP/FA and Measure levels, given in chapter 10 of the Rural Development Programmes, allows for an assessment of what measures and focus areas have been prioritised at any given level, i.e. individual RDP, Member State or EAFRD. This financial allocation analysis was presented in the above section.

As most RDPs link each measure to FAs, indicating the financial allocation to each of these, it is possible to assess how the measure's design and allocation fits the focus of the FA (e.g. water, GHG reduction) to which it has been linked. For example, for a measure where e.g. 50 % of the allocation is linked to FA 5a, the action described would be expected to significantly contribute to efficiency gains in water management.

The observations from the programmes on measures are structured by the measures defined in EAFRD Regulation (1305/2013), as this corresponds to the structure applied in the RDPs and thus allows for cross-measure and cross-RDP comparisons. However, the coming sections is further organised into agriculture, (first section) and forests and forestry (second section) to reflect the relevant policy context in the EU. For each subsection, a distinction is made between adaptation and mitigation, consistent with the approach for differentiation applied in section 1.2 (see Table 7-8). This distinction will facilitate separate overviews of adaptation and mitigation action, and comes with the understanding that several adaptation actions, in particular, will also deliver mitigation benefits, and sometimes vice-versa. In addition, it is understood that added value is delivered when a combined action is programmed under several measures and delivers a range of benefits, both climate and non-climate-relevant, and both adaptation- and mitigation-relevant. The final section provides an overview of climate action under EAFRD.

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<sup>64</sup> In this section, the term action is not limited to its use in the definition of "operations" in the CRF (Article 2(9)), where it is one out of several subtypes of an operation. Rather "action" refers to any on-farm, in-forest supply chain change in management practice or ongoing activity (such as e.g. tilling or thinning). Climate actions are actions that address climate change challenges and opportunities, directly or indirectly.

Not all measures provided for in the EAFRD Regulation have been scrutinized. A subset has been chosen based on the financial allocation. The measures with the highest climate allocation at the fund level are taken forward for analysis of action <sup>(65)</sup>. This approach allows to match allocation and action.

### 7.3.1 Climate action in agriculture

The list below has been elaborated on the basis of the shown allocations at the measures level, combined with the findings presented in the previous section and with the measures' specific provisions in the EAFRD Regulation.

*Table 7-9 CC relevance assessment is based on the complete measure text in Regulation (EU) 1305/2013.*

Measure # in database	Article	Measure title in In regulation 1305/2013	CC relevance			Allocation at EU level <sup>(66)</sup>	
			Mitigation	Adaptation	Both	%	M EUR
M02	15	Advisory services, farm management and farm relief services	S	S		0.7	379
M04	17	Investments in physical assets	P	S	x	9.7	5,459
M05	18	Restoring agricultural production potential damaged by natural disasters and catastrophic events and introduction of appropriate prevention actions		P		0.7	379
M10	28	Agri-environment-climate	P	P	x	28.9	16,248
M11	29	Organic farming	P	P	x	11.1	6,274
M12	30	Natura 2000 and Water Framework Directive payments		S		1.1	608
M13	31	Payments to areas facing natural or other specific constraints		P		27.7	15,604
M16	35	Co-operation	S	S	x	0.9	496
M17	36	Risk management		P		1.2	682

<sup>65</sup> The climate allocation is based on the information on contribution of individual measures to FAs, as given in chapter 10 of the RDPs.

<sup>66</sup> Allocation value is a percentage out of total climate allocation.

In terms of allocation, M04, M10, M11 and M13 stand out as those with the largest support. Taking from the regulation <sup>(67)</sup> text, M10 is a key measure. It serves to “preserve and promote the necessary changes to agricultural practices that make a positive contribution to the environment and climate”. <sup>(68)</sup> The table shows that M10 and M13 are major adaptation measures, with M11 and, to some extent, M04 being supportive <sup>(69)</sup>. The advisory (M02), knowledge sharing (M01) and cooperation (M16) measures may also play a role, as well as risk management (M17). For mitigation, M04 is the key measure (in particular sub-measure 4.4, non-productive investments), with M10 supporting.

Across all measures relevant for adaptation and mitigation in agriculture, main climate actions concern a small number of topics:

- › Biodiversity: Building resilience in ecosystems
- › Water: Enhancing efficiency, addressing scarcity and improving water quality
- › Soil: Preventing erosion and degradation, building top soil, and improving productive capacity of the soil
- › Livestock: Genetic conservation and improvement
- › Manure: Handling manure and promoting biogas
- › On-farm renewable energy deployment and energy efficiency: Reducing the fossil fuel reliance of modern agriculture

Actions in the agriculture sector towards climate change mitigation and climate change adaptation are described in more detail below, structured after the above topics, where relevant.

### Adaptation action in agriculture

Relevant adaptation actions would include a resource-efficient and/or sustainable approach to water management, soil management, restoration/preservation of biodiversity and ecologic resilience, as well as actions supporting a climate-resilient economy as such. This section covers the adaptation aspects of M10, M11, M13, M17, and the “soft” measures: M01, M02 and M16 <sup>(70)</sup>.

M10 AECM, Adaptation Under M10, a great variety of actions are found that all potentially address adaptation, although climate change adaptation is often not mentioned. Overall,

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<sup>67</sup> Regulation 1305/2013

<sup>68</sup> See regulation 1305/2013, under article 28. Underline of ‘climate’ added for the purpose of this report.

<sup>69</sup> Adaptation: FAs 3b, 4abc and 5a; Mitigation: FAs 5bcde.

<sup>70</sup> In general, measures that are found in RDPs that have programmed one or more of the adaptation relevant FAs (3b, 4a-c, 5a and 6b) will support climate change adaptation.

RDPs target climate change adaptation action at one or more of the below four key issues (biodiversity, water, soils and genetic resources):

Protection or enhancement of **biodiversity**, with an adaptation component (i.e. building ecosystem resilience): One-third (42) of all RDPs have both programmed FA 4a and included dedicated biodiversity actions that have been found to support climate change adaptation. In all programmes, biodiversity action is identified, but in the remaining two-thirds, the climate action consideration is not clearly specified.

*Text Box 7-1 Example of biodiversity and ecosystem resilience actions in a climate context, under M10*

**Bourgogne RDP (FR), CCI 2014FR06RDRP026**

In Bourgogne, biodiversity is rich and well preserved. However, due to expected changes in e.g. rainfall and water availability, there is a need to ensure appropriate management regimes on high-biodiversity land. M10 is a key measure to that end, complemented with M11 on organic farming and efforts in Natura2000 lands. M10 provides for support to low-input farming, to maintain the already important role of extensive farming in the region. M10, and the use of M11, has been clearly programmed in light of a regional Strategic Environment Assessment (SEA), thereby enhancing coherence and synergy between measures. Other informative examples of biodiversity or ecosystem based adaptation include Mayotte RDP (FR), Wallonia RDP (BE) and Abruzzo and Basilicata RDPs (both IT).

**Water** management (scarcity, efficiency): One-third of RDPs (43) have programmed FA 4b and/or 5a, and include climate change adaptation actions targeted at water management under M10. Almost all programmes address water issues, but not in a climate-change adaptation context.

*Text box 7-2 Examples of water management action under M10 supporting climate change adaptation*

**National Austrian RDP, CCI 2014AT06RDNP001 concerns water quality and  
Canarias RDP (ES), CCI 2014ES06RDRP005 concerns water scarcity**

Austria: In the RDP, under 'needs', several water-related adaptation needs are flagged, including those on nutrient leakage, water quality and use efficiency. Due to expected changes on the hydrological regime and impact on the quantity and quality of ground and surface water, M10 is programmed with several sub-measures that concern individual topics, allowing for targeted efforts where necessary. Sub-measures include: restrictions on fertilizer use and near-surface slurry application in concert with protection on leaching-prone soils, and both extended ground and surface protection. Another informative water quality example is Lorraine RDP (FR).

Canarias RDP (ES): Using both FAs 4b and 5a, and a suite of measures, the Canary RDP addresses water scarcity in a climate-change adaptation context. Indeed, water scarcity is brought up as a key future challenge for the islands' agricultural sector. How M10 and sub-measures are designed is not elaborated in detail, but the allocation is linked to UP4 and seems to work well in concert with the very high allocation for FA 5a under M04, which in itself takes up more than 20 % of the entire climate allocation. Another informative example on water efficiency and scarcity is Corse RDP (FR).

**Soil** management, meaning protection from and prevention of erosion and soil degradation and restoration of productive capacity/fertility: One-fourth of RDPs (31) link to FA 4c and show a clear focus on soils in the programming of M10. Again, in a number of cases additional to those 31, land management or the land resource is mentioned. However, these mentions were made without clear explanations of actions that allowed confirmation of adaptation relevance.

*Text box 7-3 Examples of soil management with a clear consideration of climate change adaptation*

**National Bulgarian RDP, CCI 2014BG06RDNP001**

Measure 10 in the Bulgarian RDP includes activities oriented towards supporting extensive agricultural practices for the conservation of semi-natural grasslands, conservation of soil fertility and reducing soil and water pollution through introducing green soil cover, and practices that reduce soil erosion and degradation. The RDP states that sustainable ecosystems in good condition possess great potential for mitigation and adaptation to the consequences of climate change. Other informative examples include the National Polish RDP (operation 1.1 and 1.2), and regional programmes of the Marche RDP (IT), Picardie RDP (FR) and Navarra RDP (ES).

Animal **breeding and genetic resource** management (both plant and animals): Some RDPs (11) include distinct actions on genetic resources and breeding from a climate-change adaptation perspective.



*Text box 7-4 Examples of adaptation action under M10 concerning breeding and genetic resources*

**National Irish RDP, CCI 2014IE06RDNP001**

The core aim of the Irish Beef Data and Genomics Programme is to improve the genetic merit of the national beef herd through the collection of data and genotypes of selected animals, ultimately allowing for the application of genomic selection in the beef herd. The selection will improve not only the GHG performance of the herd (hence mitigation) but also promote species and breeds better adapted to changing climatic conditions. One notable aspect of this RDP is its scale and level of ambition.

The most prominent and large-scale example is the Irish RDP, but Azores and Madeira (both PT), Madrid (ES) and national HU programmes also include informative examples on breeding and genetic resource management in a climate-change adaptation context.

In summary, the above observations indicate that climate change adaptation through M10 is directly addressed in few RDPs, but indirectly addressed in the vast majority of RDPs. In fact, most RDPs use M10 to address more ‘traditional’ environmental issues, such as biodiversity, soil or water-related challenges, in ways that will allow them to reap adaptation benefits at the same time. Thus, much of the adaptation action seems to be the result of a holistic and ecosystem-based approach that strengthens the general resilience of rural areas and the soils, water cycles and ecosystems therein, and not the result of dedicated adaptation actions.

**M11 Organic farming**

Converting to or maintaining organic farming practices can deliver several potential adaptation benefits, mostly in relation to water and soil management, and increased biodiversity in and near agricultural land.

M11 has been widely used (in 107 RDPs), and the allocation varies from 0.1 % to 49 % of total climate allocation. On several issues of programming, M11 is not that different from one RDP to another. Across all RDPs, the intervention logic is quite similar, which follows from the wording of the regulation. Due to these similarities, the analyses concentrate on considering what benefits managing authorities foresee obtaining from the use of M11.

In terms of focus, the RDPs use M11 to obtain a wide range of environmental benefits, some of which have more or less indirect climate change adaptation relevance. The number given for each of the below types of benefits indicate a count of RDPs explicitly referring to the particular benefit in the RDP section describing M11:

Reduced **pollution and pesticide use**, including water quality protection: One-fourth of RDPs (37) link M11 to FAs 4b (restoring, preserving and enhancing ecosystems) plus 5a (increasing water efficiency) and simultaneously include direct or indirect considerations on the climate-change adaptation benefits of reduced pollution and input use in the measure’s description.

*Text box 7-5 Example of pollution prevention and reduced pesticide use with a clear consideration of climate change adaptation*

**National Greek RDP, CCI 2014GR06RDNP001**

Identified as an adaptation-relevant need, the RDP addresses organic farming in the context of climate change. M11 is used to promote low-impact farming, reducing the stress on the environment caused by high levels of fertilizer and pesticide use. This will then allow ecosystems to build resilience.

Other informative examples are National Swedish RDP and Auvergne RDP (FR).

Protect or improve **soil quality**, including erosion prevention: One-fifth of RDPs (25) link M11 to FA 4c and plan to address soil issues in a climate change adaptation context.

*Text box 7-6 Example of addressing soil fertility as a means to adapt to climate change*

**Alsace RDP (FR), CCI 2014FR06RDRP042**

In the Alsace RDP, the adaptation of the agricultural sector to climate change as such, is identified as a need (#8) in the early parts of the programme. This is followed through in several measures including in M11, which is clear in terms of the consideration of the adaptation benefits of the soils aspects of organic farming. The RDP includes a target to double the share of organically managed land, to 10 % by 2020.

Another informative example could be Wales RDP (UK).

Enhancing **resilience of ecosystems**: One-fifth of RDPs (22) link M11 to FA 4a and show consideration of climate benefits to be achieved from biodiversity management.

*Text box 7-7 Example of resilience building in ecosystem in light of climate change*

**National Romanian RDP, CCI 2014RO06RDNP001**

The Romanian RDP starts out recognizing that climate change is a principal restricting factor for future agricultural activity, and consistently identifies a number of adaptation needs that are related to restoring, preserving and enhancing biodiversity, including in Natura 2000 areas and areas facing natural or other specific constraints, and high nature-value farming and the efficient use of water resources. M11 is then used as one among several measures to deliver against this.

Another informative example could be Marche RDP (IT).

Reduced **water use** and **protection of water** resources: One-sixth of RDPs (18) link to FA 4b and 5a, and include clear consideration of the climate-change adaptation component.

*Text box 7-8 Example of climate change adaptation addressing water use and water quality*

**Bolzano RDP (IT), CCI 2014IT06RDRP002**

The Bolzano RDP identifies adaptation challenges that include the need to enhance the role of farmers in the preservation of the hydrogeological assets of the territory and in supporting agricultural production against climate change-induced droughts, hail, rainfalls and increased risk of violent winds. M11 is pointed out as a key measure to address these, i.e. by promoting the improvement of the ecological quality of waterways and reducing agricultural water use.

Another informative example could be Aquitaine RDP (FR).

As is seen, about one in four RDPs have programmed M11 with a view to reducing the impact of agricultural production on the surrounding environment, through reduced input and/or reduced leakage. Slightly fewer RDPs have included soil or biodiversity considerations in the programming, and a little more than 10 % of RDPs use M11 to reduce water use. The RDPs not included under any or all of the above topics may still address (for example) water management, but without referring to climate action. This tendency is particularly pronounced for M11, as its first and foremost purpose is to convert to and maintain organic farming.

Overall, many RDPs use M11 to address several issues at the same time. But, as the counts in the above indicate, more than half of RDPs do not explicitly state any particular focus for M11 on any specific adaptation-relevant benefit, other than promoting conversion of farms to organic production.

M13 Payments to areas facing natural or other specific constraints

In terms of support, a key adaptation measure is M13. Support allocated for M13 counts 100 % as climate action. M13 delivers 27.7 % of all climate action funding in the EAFRD, second only to M10. Among programmes, the allocation varies from 0.3 % to 83 % of total climate allocation. The measure is selected in 93 RDPs. The regulation's text on M13 does not directly refer to climate change.

In general, the adaptation elements in M13 are not clear. A handful of RDPs mention environmental aspects, but do not provide much information on how adaptation is to be achieved. Some RDPs go further and specify environmental benefits to be obtained via M13 in a way that allows expectation of adaptation benefits:

*Text box 7-9 Example of climate change adaptation under M13 by topic*

*M13 linked to benefits similar to FA 4c: Fighting erosion and land degradation and protect soils in general: National Maltese RDP, CCI 2014MT06RDNP001*

The National Maltese RDP starts out identifying needs to address both landscape and soil degradation. This leads to the programming of M13 in view of the nature of Maltese soils. Maltese soils are all rather young or immature, since pedological processes are slow in calcareous soils, particularly where acidic drainage water is very limited in quantity. This means that already limited agricultural land is very vulnerable to changes in precipitation and overuse. M11 is closely linked to M10 and, as a whole, these two allow for maintaining extensive practices on soils that would otherwise degrade and be

abandoned. Notwithstanding this, the RDP reads that the measure will have a modest climate change adaptation contribution (section 8.2.9.2).

*M13 linked to FA 4a: Preservation of local and/or typical biodiversity to enhance resilience: Centre RDP (FR), CCI 2014FR06RDRP024*

The Centre RDP identifies that the region holds favourable conditions to maintain biodiversity: 17 % of the territory covered by Natura 2000, 22 % of the territory covered by forests, diversified crop rotation systems and cultures, extensive livestock farming in wet grasslands etc. In light of this, the Centre RDP programmes M13 and other measures targeted at opportunities associated with high biological potential to ensure resilience of landscapes and the environment as such, i.e. aiming to become a biodiversity adaptation showcase.

*M13 linked to FA 4b and/or 5a: Addressing water issues: Pays de la Loire (FR), CCI 2014FR06RDRP052*

In the Loire valley, seasonally unbalanced water usage, increased intensity in rainfall and the expectation of more extreme events with changing climate has led to the identification of a risk to agricultural production and stability. As a response, the RDP is programmed to address both qualitative and quantitative water issues and integrated risk management. The choice and design of sub-measures under M13 is largely defined in the national programme, but in Pays-de-la-Loire, the many low-lying agricultural areas are included under the measure and flooding-preventive action is supported.

As a broader observation, many RDPs (>30 identified) highlight M13 to maintain settlements in rural areas at risk of depopulation and land abandonment, which may support climate change adaptation.

In general, for a majority of RDPs, M13 has been designed to deliver some environmental benefits that indirectly (and implicitly) can support climate change adaptation. However, no RDP clearly considers climate change adaptation in the programming of M13.

#### M04 Physical investments

All but 14 RDPs have programmed M04, and an overall EUR 3.7 billion of the 5.5 billion of support for climate action allocated under this measure has been allocated to UPs 4a-c and 5a. To be noted, this further translates into EUR 2.6 billion allocated to investments related to water (FAs 4b and 5a).

Across all relevant RDPs, M04 is almost always used to modernise agricultural holdings, and thereby to enhance resource efficiency in terms of water, energy and chemical inputs (such as fertilizers). Energy efficiency and input reduction are considered in more detail under mitigation in the next section of the report.

Water efficiency is pertinent in areas facing rising water stress as a result of climate change, and is mostly seen in the Mediterranean and on the Canary Islands. In the Canarias RDP (ES) and in the Puglia RDP (IT, see Text box 7-10 below) integrated and far-reaching approaches have been taken to manage water.

*Text box 7-10 Example of climate change adaptation addressing water use*

**Puglia RDP (IT), CCI 2014IT06RDRP020**

In the case of Puglia RDP (IT), M04 (and other measures) support a wide range of water-saving and distribution needs, including modernisation of irrigation systems, redistribution of water, promotion of cultivars resilient to water stress, and options for re-arranging water-managing authorities. This caters to a sector-wide, multi-stakeholder and full water supply-chain scope of action.

**M17 Risk management** The risk management measure is intended to provide insurance and financial compensation for economic losses caused by adverse climatic events. Only 14 RDPs programmed this measure. Some RDPs actively use the measure to address climate change adaptation.

Flanders (BE), Croatia, Lithuania, Latvia, Malta, Netherlands and the three RDPs in Portugal all mention climate change adaptation as part of the justification for using M17. The National Framework Programmes of Italy and France do the same to an extent.

*Text box 7-11 Example of risk management in light of climate change adaptation*

**Lithuanian National RDP, CCI 2014LT06RDNP001**

Of the abovementioned examples, the Lithuanian RDP makes the most noteworthy use of the measure in a climate-change adaptation context. By contributing funding to the insurance against new pests and diseases related to adverse climate conditions, resilience is increased in to agricultural sector in Lithuania.

**Soft action:**  
Knowledge,  
cooperation and  
communication

Knowledge and skills are important in view of climate change adaptation, e.g. through the proliferation of practices that result in reduced water use in areas where water availability is limited. Measures 1, 2 and 16 focus on building skills through knowledge transfer, information action, advisory, awareness raising, relief and management services and cooperation between actors (or what could be termed 'soft' action). Overall, for the EAFRD as such, the allocation for these measures represents 2.11 % of total climate allocation. However a number of RDPs (18) do not include allocation for any of these measures, and another 35 RDPs allocate less than 1 % of their support for climate action to this area.

A number of RDPs include adaptation-relevant issues consistently across the three measures, even if the allocation is limited (less than 7 %), and appear to have coordinated the programming of the three measures. For example, in the National Bulgarian RDP, soil erosion prevention is addressed, and in Abruzzo, Toscana and Trento (all IT RDPs), water management is covered in all three measures. The Swedish RDP integrates considerations on circular economy, resource efficiency and renewable energy under all measures.

*Text box 7-12 Example of using knowledge, advisory and cooperation to address climate change adaptation*

#### **Piemonte RDP (IT), CCI 2014IT06RDRP009**

The Piemonte RDP (IT) is a good example of targeted and clear adaptation action. At the same time, the RDP has the highest allocation for soft action of all RDPs, and includes a range of adaptation-relevant issues consistently across the soft measures: risk management, low-impact management practices, and water efficiency. The RDP identifies 4 adaptation risks that concerns networks, knowledge, skills- and capacity-building, and has a strong focus on addressing these.

All in all, almost half of RDPs have allocations for soft action and in a few cases climate change adaptation has been considered explicitly. It appears that soft action can play a significant role in adaptation, but often the link has not been clearly established.

#### **Mitigation action in agriculture**

In agriculture, EAFRD contributes to climate change mitigation through carbon sequestration or GHG emission reduction. This is covered by four out of five FAs under UP5 (i.e. b-e):

- › (b) increasing efficiency in energy use in agriculture and food processing;
- › (c) facilitating the supply and use of renewable sources of energy, of by-products, wastes and residues and of other non-food raw material, for the purposes of the bio-economy;
- › (d) reducing greenhouse gas and ammonia emissions from agriculture;
- › (e) fostering carbon conservation and sequestration in agriculture and forestry.

While the four FAs indicate mitigation benefits, measures that address one or more of these will often also generate adaptation benefits as foreseen or unforeseen side effects.

This section considers allocations implemented under measures linked to any of the listed FAs. It should be noted that, in some cases, measures are observed to have a clear mitigation relevance, but with no explicit mention of mitigation in the actual RDP text, and no link to UP5 is given. Such 'implicit climate action' is quite often seen and is also considered in the below analysis. The identification of it is, however, largely dependent on the level of detail of the information provided in the RDP for each individual measure.

Mitigation action in the agricultural sector is mostly programmed through M04, but also via M10 and M11 (see section 1.1).

M04 Investment in physical assets

At the EU level, most of the M04 funding is allocated to UP4, but a minor share of M04 support also falls under UP5a – and even less for UP5b and UP5c. Still, 95 % of the support allocated to UP5a is designated for M04, and 92 % of the funds

allocated to 5b is disbursed using M04. Thus, M04 is the single most important measure for those two FAs. Of the EUR 5.5 billion allocated to M04 for climate action, almost EUR 1.8 billion is allocated to mitigation actions under FAs 5b-e. This corresponds to 32 % of the climate funding to M04, and at the same time renders M04 the single most important mitigation measure in terms of support.

In terms of concrete action, M04 can be divided into investments in efficiency in regard to water <sup>(71)</sup> or energy or resource use, and investments in technology that allow for sustainable management of land or animals, e.g. monitoring technologies. Mitigation benefits can be delivered through sub-measures targeting energy and resource use, directly through energy efficiency measures at the farm or better use of manure and fertilizers.

One example of the climate-change mitigation use of M04 is found in the mainland RDP from Finland (see Text box 7-13 below.) Most farms in Finland integrate both forestry and agriculture, and the Text Box illustrates how this is reflected in the approach taken to M04. Another less integrated, but very clear, example is the Slovakian National RDP (CCI 2014SK06RDNP001) that targets limiting emissions and raising the rate of sequestration of CO<sub>2</sub> in agriculture. This target is supported by non-productive investments under M04 aimed at storing organic fertilizers and manure, and is directed explicitly at FA 5d and 5e.

*Text box 7-13 Example of climate change mitigation action in agriculture using M04*

**Mainland Finland RDP, CCI 2014FI06RDRP001**

Under FAs 5C and 5D, the RDP sets out to address a number of challenges that include resource efficiency, development of a bio-economy and reduction of GHG emissions from organic soils. Under sub measure 4.4, payments are made to farmers for recovering wetlands and habitats, which should lead to reduced emissions as a result of rewetting. While this approach in itself is not unique, it is interesting how the need for sustainable farms that include both forests and agricultural land, which manage both cropland and grazing land, is integrated across all three sub-measures of M04. This caters for a change at the farm level and not individual actions.

**M10 AECM, Mitigation** In total, 66 % of the support under M10 is allocated to UP4. Around 5 % is allocated to 5d and 5e, and no support is allocated to 5b and 5c. The two latter cover efficiency investments, and these are often prioritized under M04, which makes good sense. Climate change mitigation action under M10 will deliver direct emission reductions or enhanced sequestration. Under M10, 76 RDPs do not allocate funding to FA 5d and 5e. Of the remaining RDPs, the allocation varies from negligible (0.1 %) to significant 13 % in Bavaria RDP (DE) and almost 15 % in Bolzano RDP (IT). Other high allocation examples are Pas-Nord-de-Calais RDP (FR) with almost 12 %, and the 11 % allocated in the Irish RDP.

In terms of the potential mitigation impact and the support allocated, the Bavarian and Irish RDPs are the single most important ones. The Irish RDP allocates more than EUR 200 million and the Bavarian RDP almost EUR 170 million. Together,

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<sup>71</sup> Water efficiency measures are considered under adaptation.

this constitutes more than half of the EUR 750.8 million allocated to FAs 5d and 5e for all RDPs. These two programmes are, in terms of potential effect and scale of action, the most important at the EU level <sup>(72)</sup>.

M10 is often used to address a wide range of environmental and climate change adaptation issues. In fact, in most of the RDPs, where the allocation for mitigation is small (<2 %) it is often difficult to observe from the RDP any clear mitigation action. Still, many of the RDPs do explicitly mention mitigation, in particular loss of soil carbon and emissions from manure management in the SWOT, or as a challenge, and the allocations seem to be based on the perceived indirect effects of the sub-measures targeted (e.g. nature protection or erosion prevention). This approach is fully valid, as GHG reductions will often result from optimization, changes in techniques or management, or land restoration.

Among RDPs that dedicate a significant amount of support under M10 to 5d and 5e (>2 %), most clearly mention climate change mitigation in one or more sub-measures or activities. For example, the Lithuanian RDP includes a number of activities targeted at soil and land management with expected GHG benefits. The Lombardy RDP (IT) includes a sub-measure (no. 10.1) that holds initiatives to foster conservation agriculture, management and conservation of livestock waste to prevent CO<sub>2</sub>/CH<sub>4</sub> and ammonia emissions, and to enhance carbon stock in soils as well as water and energy efficiency initiatives, altogether delivering towards all mitigation FAs. For this group of RDPs (some 20 in total), mitigation is found to play a clear role, based on dedicated programming. A specific example is given in Text box 7-14 below.

*Text box 7-14 Example of climate change mitigation action in agriculture using M10*

**Bolzano RDP (IT), CCI 2014IT06RDRP002**

In Bolzano RDP, the agricultural landscape is framed by forests, wine production and mountains, yet intensively managed. The challenges are thus many and different, varying from erosion to fragmented forests to the decreasing economic viability of the sector. To answer these challenges, the RDP sets out to develop agricultural practices that are respectful of the ecosystem, environmentally-friendly, extensive, and that reduce the use of synthetic fertilisers while supporting rational use of alpine meadows. M10 plays a central role in this, and sub-measure 10.1 is expected to play a critical role in terms of both mitigation and adaptation. This is to be achieved through land conservation and erosion prevention (carbon sequestration and soil carbon protection) and reduction in the use of fertilizers (reduced GHG emissions).

In quite many RDPs, sustainable management of land or resources, sustainable intensification, or extensive land management seem to play a central role, (notwithstanding their allocation to 5d and e). This approach was found in 18 RDPs, including Bavaria (DE), DK (therein called 'climate-resilient landscapes'), PL (operation 1.1), LT (Landscape stewardship scheme), HU (sub-measure 10.2), and

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<sup>72</sup> It should be noted that the mentioned allocations often are meant to cover both agriculture and forestry activities, in particular this is the case for the Bavarian RDP.



several regional ES, IT and FR RDPs. This approach is not linked to a particular FA. Rather, it builds on the identified objectives in the RDP. One typical example of a formulation is ‘promotion of environmentally friendly agricultural practices’, as seen in La Rioja and Valencia (both ES RDPs). Quite interestingly, emphasis is on developing “medium intensity agriculture” in the Austrian National RDP. Landscape-level approaches to change the intensity of agriculture hold the potential to deliver climate change mitigation benefits, notwithstanding whether the RDP allocates this approach to the mitigation FAs, as it would thus be another example of ‘implicit’ climate action.

#### M11 Organic farming

Almost all RDPs (107) allocate support for M11, and the allocation varies from 0.1 % to 49 % of total support for climate action. The possible contribution to climate change mitigation is indirect. The measure is not used to mitigate climate change. The use of M11 is quite similar across RDPs. This is well exemplified by the approach in the Mainland RDP for Finland, where it is explicitly stated that climate benefits are secondary.

It is quite interesting that only three RDPs provide allocations under M11 for FAs 5d and e, and no RDP allocates to 5c, although energy efficiency should be a perceived benefit of organic farming <sup>(73)</sup>. The three RDPs are, by order of amount allocated, Greek National, Valencia (ES) and Liguria (IT). The National Greek RDP allocates some EUR 211 million to 5d, thus creating the expectation that significant emission reductions, mainly from fertilizer management and carbon sequestration in soils, should be achieved.

*Text box 7-15 Example of climate change mitigation action using organic farming under M11*

#### **National Greek RDP, CCI 2014GR06RDNP001**

Greek agriculture of the future should be seen against a backdrop of high erosion rates, increased water scarcity and many degraded soils. Early on in the RDP, organic farming is identified as a means to tackle these challenges and, not least, build a stronger and more resilient agricultural sector. One of the key perceived benefits of organic farming is its ability, through low-impact practices, to build up soil organic matter. This not only supports adaptation, but also sequesters CO<sub>2</sub>. In concert with M04, M10 and other measures, M11 will indirectly deliver on carbon sequestration, but it is furthermore aimed at reducing emissions from use of fertilizers. Thus, M11 is seen to clearly deliver against both 5d and e.

### 7.3.2 Climate action in forests

Climate action in forests and forestry is mainly found in the measures listed in Table 7-10. The table indicates the relevance of the individual measures vis-à-vis climate change adaptation and climate change mitigation. The relevance has been

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<sup>73</sup> A few (<5) RDPs include energy savings as a benefit of M11, but without linking the measure to FA 5c.

assessed on the basis of a scrutiny of the wording of the respective descriptions provided in the regulation.

Table 7-10 Climate action in forests and forestry. 'P' means primary and 'S' means secondary. <sup>(74)</sup>

Measure # in database	Article(s)	Title in Regulation 1305/2013	Predominant CC focus ('S' means secondary, 'P' means primary)		Allocation at the EU level	
			Mitigation	Adaptation	%	M EUR
M08	21-26	Investments in forest area development and improvement of the viability of forests	P <sup>(75)</sup>	P	7.4	4,173
M15	34	Forest-environmental and climate services and forest conservation	P	P	0.5	280
M17	36	Risk management		P	1.2	682

Across all Member States, M08 is widely used. In the following, M08 and M15 are covered. They account for the largest support. M17 is covered briefly under adaptation. By topic, M15 would be the most relevant and important measure, however only a subset (33) of RDPs have programmed M15.

### Adaptation action in forests

M08, adaptation:  
Investments in forest area development and improvement of the viability of forests

In general, many RDPs have a strong environmental focus in M08, meanwhile mentioning resilience, risk management and adaptation in measure descriptions. Across all RDPs, climate change adaptation in forests and forest sectors is found to be reasonably well covered in this measure. Many of the RDPs include sub-measures targeted at post-fire restoration and fire prevention, or which address a broader list of adverse impacts, including erosion and loss of forests due to storm damage. The climate-change adaptation component of these sub-measures is indirect, and not always mentioned in the RDP.

Clear examples of adaptation action in forests that are included in M08 are found in the England RDP (UK), where a broad scope of benefits are aimed for with a rather high level of ambition (see Text box 7-16). Another example is Latvia, where underdeveloped forest-fire monitoring systems and lack of private forest management systems are mentioned as challenges for adaptation. The Latvian RDP – alongside the Latvian national adaptation strategy – addresses this and other needs in light of adaptation in forests, and is an example of a very targeted and specific use of M08.

<sup>74</sup> In practice, forestry adaptation and mitigation often goes hand in hand. The 'P' or 'S' should not be seen as mutually exclusive, but as indication of overall focus.

*Text box 7-16 Example of climate change adaptation in forests using M08*

**England RDP (UK), CCI 2014UK06RDRP001**

In England RDP, M08 will support investments in modernising forestry technologies, but also in improving resilience, enhancing environmental value and the mitigation potential of forest ecosystems. The measure is programmed to support adapting to climate change, deliver forest protection and creating new woodland.

The sub-measures supported include (8.1) support for afforestation/creation of woodland, (8.3) support for prevention of damage to forests from forest fires and natural disasters and catastrophic events, (8.4) support for restoration of damage to forests from forest fires and natural disasters and catastrophic events, and (8.6) support for investments in forestry technologies and in the processing, mobilising and marketing of forest products.

M08 seems to be able to deliver substantial adaptation benefits in forests in England, and growth in forest-based industries.

M15, adaptation:  
Forest-  
environmental and  
climate services and  
forest conservation

In Austria, M15 is specifically used to promote conservation of forest genetic resources. This approach is found in several other RDPs (for example, the National Spanish RDP supports this focus as well). Ecosystem resilience is mentioned in the País Vasco RDP (ES), but not explicitly in an adaptation context. Still, the RDP does link M08 and M15, and appears to have prioritized coordinated actions. A few additional RDPs have a strong biodiversity and ecosystem focus, which links to adaptation.

**Mitigation action in forests**

M08, mitigation:  
Investments in forest  
area development  
and improvement of  
the viability of forests

Of climate change mitigation relevance, more than 80 RDPs allocate M08 support to a mitigation FA, which indicates that the measure is often used for climate purposes. A number of Spanish and Italian RDPs allocate more than 15 % of the total support for climate action to this measure. In relative terms, the Asturias RDP (ES) contributes the most: 24.4 % of its total support. In absolute terms, the Continental RDP for Portugal allocates the highest support for M08: EUR 194 million is allocated to FAs 5b, c and e. Most RDPs (58) only allocate M08 support to 5e. This shows that the measure is mainly expected to deliver on carbon sequestration. 22 RDPs include allocations under 5c, in which case the forest industry and/or bioenergy often plays a strong role, and for eight of these, there is no allocation to 5e. For these eight RDPs, the measure will thus deliver on bioenergy but not on sequestration. All in all, the allocations and support suggest that this is a key measure and that mitigation has been included in the programming as sequestration or to stimulate bioenergy (or a combination of the two). The concrete programming and actions exemplified below support this.

*Text box 7-17 Example of climate change mitigation in forests using M08***National Hungarian RDP, CCI 2014HU06RDNP001**

The Hungarian RDP allocates altogether 7.7 % of support for climate action, of which EUR 12 million is dedicated to bioenergy (5c), and EUR 114 million to carbon sequestration (5e). Apart from being the fourth highest absolute allocation for M08, it is interesting, as it combines funding and action both stimulating more use of biomass for energy and, at the same time, promoting more sequestration. Ideally, these two would go hand in hand in order to prevent a decreasing carbon stock as a result of increased harvest for bioenergy.

In more concrete terms, the Hungarian RDP includes from the beginning in the SWOT identification of an opportunity in terms of improving forest management and ecosystem conservation, thus yielding both mitigation and adaptation benefits at the same time. This later translates into both needs and the description of focus area 5c and 5, where again M04 (Investments in Physical Assets, i.e. equipment to improve forest management) and M08 are identified as key measures. M08 in the Hungarian RDP includes six sub-measures, of which afforestation (8.1) and agro-forestry (8.2) are particularly interesting in a climate-change mitigation context.

M08 is most often used for afforestation in Austria, Bulgaria, Belgium, France, Poland, Portugal and Romania, while some Member States and regions use the measure to support restoration and prevent degradation (Austria, Lithuania, Slovenia, Slovakia and some in Spain and Italy), in several cases with a specific view to increase carbon sequestration. Quite a few RDPs use M08 to strengthen forest-based industries with a view to increase resource efficiency. Most notably, examples of such RDPs are Austria, Flanders (BE), Bulgaria, Portugal, England (UK) and some Italian and Spanish regions. In Flanders (BE), a sub-measure will increase demand for construction wood by incentivising wood buildings through subsidies. In England and Portugal RDPs, funding should help the forest industry renew applied technology, and in the Czech Republic RDP, sawmills should be upgraded to reduce waste. Bolzano and Tuscany (IT), Lithuania and Bulgaria RDPs explicitly mention promoting local supply of wood for bioenergy production.

In general, it is found in specific cases that M08 integrates climate action. However, the explicit mentioning of climate-change mitigation in the actual RDP text (notwithstanding the allocation) is vaguer and mostly related to bioenergy or resource efficiency, but with a few clear cases (largely related to afforestation). While many RDPs in practice will use funding for establishment or improvement of forest management plans as a tool, only Aragon RDP (ES) mentions management plans explicitly.

M15: Forest-environmental and climate services and forest conservation

All in all, 33 RDPs have programmed M15. Of these, Madrid, Andalucía (both ES RDPs) and Umbria RDP (IT) have linked the allocation to a mitigation FA (5e) (carbon sequestration). The remaining RDPs all link the support to UP4, which indicates adaptation action.

*Text box 7-18 Example of climate change mitigation in forests using M15*

**Andalucía RDP (ES), CCI 2014ES06RDRP001**

Three of six climate change mitigation challenges identified in the RDP revolve around forests, carbon sequestration and renewable energy. This translates into a need for “promotion of sustainable use and valorisation of Mediterranean forests through an integrated planning and management”, linked to FA 5e. A combination of measures are identified to deliver on FA 5e, namely M01, M02, M04, M08, M10 and M15. This reiterates the importance of carbon sequestration and forests in the region, and indicates a coordinated and integrated approach. Although M15 appears to be minor in the measures, it is here activated with climate-change mitigation in mind.

Indeed, the Andalucía RDP has the third highest allocation for 5e under M08, with EUR 164 million, compared to EUR 8.3 million under M15, thus signalling the relative importance lent to the two.

In many of the 33 RDPs, climate change mitigation through forest management under M15 is mentioned in the measure description, but often in generic terms. A typical example is the Aragon RDP (ES). The RDP mentions climate change mitigation to be achieved through improved forest management, however the link is not well described. Among the forest-rich Member States (FI, SE, LV and AT), it is notable that SE, LV and FI does not make use of M15 <sup>(76)</sup>. As such, M15 appears to be used mostly for forest conservation, with M08 contributing significantly more to mitigation.

### 7.3.3 Overview of climate action

The coming section identifies the most common climate action identified in the Rural Development Programmes, starting by identifying actions targeted at agriculture and subsequently identifying actions targeted at forests and forestry.

#### Agriculture

In summary, the types of action foreseen on agricultural land in the Rural Development Programmes can be seen in the Table 7-11. ‘Typical measure’ refers to the measures that are typically used to programme the action within the RDP, and ‘typical FA link’ shows the FAs to which the mentioned type of action is often linked.

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<sup>76</sup> Several Member States use national resources through state aid to support actions similar to those catered for under M15, but this is not within the framework of the Rural Development Programme.

*Table 7-11 Overview of typical actions <sup>(77)</sup> in agriculture, with classification of actions entirely based on observations in Rural Development Programmes. In the rightmost column, 'M' means mitigation and 'A' means adaptation. 'A/M' reflects the distinction that adaptation is more prominent than mitigation, and 'M/A' reflects the opposite situation. Based on expert judgment from RDP texts only.*

Type of action based on observations in RDPs	Typical measure	Typical FA link <sup>(78)</sup>	M/A <sup>(79)</sup>
<b>Soil and land</b>			
Erosion prevention	M10, M13	4c	A
Soil management	M10, M11	4c, 4a, 5e	A/M
Carbon sequestration in soil/Increase in organic matter in soil	M10	4c, 5e	M/A
Shift to or maintain extensive grazing on wetlands	M11, M13	4a, 4b, 4c, and 5d	M/A
Requirements on crop diversification (further to Greening)	M13	4a, 4c	A/M
Land restoration	M10	4a, 4c	A/M
Rewetting of wetlands	M04, M10	4a, 4b, 4c, and 5d	M/A
Improved land management via better data collection and management systems	M04	4a, 4b, 4c	A/M
<b>Plants, nature and biodiversity</b>			
Nature protection and management	M10	4a	A/M
Biodiversity protection and management	M11	4a	A/M
Insurance against pests and diseases	M17	3b, 4a	A
Promotion of new cultivars	M04	4a	A/M
<b>Water</b>			
Water efficiency actions	M10, M11	4b, 5a	A
Improved irrigation techniques and technology	M04	4b, 5a	A
Dikes, flooding prevention, and physical water course management	M04, M13	4b, 5a	A
<b>Livestock and manure</b>			
Improved fertilizer and manure management	M10, M04	4b, 4c	M/A
Breeding and genetic resources	M10	5d, 4b	A/M
<b>Energy</b>			
Energy efficiency improvements on farm	M04	5b	M/A

It is seen from the table that most actions can be expected to deliver adaptation and/or mitigation benefits. The exception would be actions targeted at water management, which can hardly be said to deliver mitigation benefits in the sense of

<sup>77</sup> For this table in particular, one should recall the use of the term action in this section, as explained in footnote 64. Also note that the material for the table is observed wording in the RDPs, and thus this list follows no official definition or compilation.

<sup>78</sup> The linking is based on screenings of RDPs, and is not backed by an actual word count.

<sup>79</sup> 'A' means adaptation and 'M' means mitigation. 'A/M' means predominantly Adaptation, but with supporting mitigation benefits. 'M/A' means the opposite.

GHG emission reductions or carbon sequestration at the farm. For most actions, adaptation benefits dominate (indicated by “A/M” in the rightmost column). However, it should be noted that in terms of FA links, these actions are linked to UP4, which does not mention adaptation in itself, neither directly nor indirectly, but environment more broadly. As such, the adaptation benefits of many of the actions are in fact difficult to link to a FA, which can explain to some extent why much of the foreseen adaptation action found in RDPs appears only indirectly, or as a result of actions targeted at environmental issues, where adaptation is a co-benefit. The hypothesis would be that Managing Authorities have had difficulties in establishing clear allocations to an adaptation Focus Area (an obvious challenge, given that there is no such Focus Area). This observation would call for an adaptation-specific FA as such, focused on *“building resilience towards climate change in agriculture and rural landscapes.”* The mitigation benefits of actions are more straightforward to link to a FA, as FAs 5d and e are clearly focused on GHG emissions and carbon sequestration.

It is striking that many of the actions are rather broad. For example, under soil management, it has not been possible to detect to what extent conservation tillage or no-till is promoted or indeed required. This exemplifies that, under M10, many RDPs include a specific sub-measure on soil management, but that the explanatory text provides little detail on what this entails in practice.

The table further shows how a few key measures host a broad list of climate actions, encompassing several topics. M04 and M10 in particular cover soil, water, and livestock, and do so in the context of all Focus Areas of Union Priority 4 and 5. Also, M11 on organic farming and M13 on areas facing constraints host a number of actions of similar nature, concerning e.g. soil or water. While the FAs of UP 4 reflect some of the topics (soil, water and biodiversity) and thus some of the actions, many of the concrete actions would fit with several FAs (e.g. wetland action) and a few have no clear fit (e.g. actions on breeding and genetic resources). As a result of this, it may be that Managing Authorities have had difficulty allocating many adaptation actions to a particular FA, especially so if these does not concern soil, water or biodiversity. This may to some extent explain why much of the adaptation – and to some extent, mitigation – action is only implicitly stated in the RDPs. It has been programmed into measures serving multiple purposes and linked to FAs not matching the full range of concrete climate action on livestock, fertilizer (before it enters the aquatic environment), manure, and breeding and genetic resources (both for animals and crops), and while this can have broader environmental benefits, the climate benefit potential is negligible.

## Forests and forestry based sectors

The typical actions foreseen on forestland and in forest-based sectors are fewer in number, and can be seen below:

*Table 7-12 Overview of typical climate actions in forests and forest based sectors. Same notes on understanding as for agricultural action applies. In the rightmost column 'M' means mitigation and 'A' means adaptation.*

Type of action	Typical measure	Typical FA link	M/A
Carbon sequestration through changing management in standing forests	M15, M08	5e, 4a	A/M
Carbon sequestration through afforestation	M08	5e, 4a	M/A
Conserve and/or improve forest genetic resources	M15	5e, 4a	A
Forest management improvements (plans, practices, data)	M15	4a, 5e	A/M
Post fire restoration and fire prevention	M08	4a	A/M
Biodiversity and/or Habitat conservation in forests	M08	4a, 5e	A/M
Production for Bioenergy/Renewable Energy	M08	5c, 5e	M/A
Forest Industry initiatives (mostly efficiency and use of residues and waste)	M08	5c, 5e	A/M

By and large, action in forests and forest industries is hosted by two measures, namely M08 (Investments in forest area development) and M15 (Forest-environmental and climate services and forest conservation). Apart from actions in the forest based industries, all deal with the practices of managing a productive forest and includes carbon sequestration, biodiversity, fire/risk management and improvement of genetic resources. As there is no forest-dedicated Focus Area, the allocation of actions to FAs relies on the interpretation of the allocator (the Managing Authority), and taken from perceived benefits. And, as almost all action that deals with managing forest ecosystems will inevitably have many side effects (positive and negative), an action targeted at habitat protection through increased numbers of deadwood logs on the forest floor will lead to higher carbon stock (a benefit), but perhaps also increase risk of fire. Hence, the actions and their benefits are very much interlinked, and actions can thus more or less all be linked to 4a and/or 5e. Other allocations have been observed, but as individual outliers.



## 7.4 Key conclusions

The following conclusions on the mainstreaming of climate action into the European Agricultural Fund for Rural Development have been found:

### General

- › Climate-relevant financial allocation under the Rural Development Programmes amounts to 57 % of total funding. Judged by the financial allocation, the European Agricultural Fund for Rural Development is thereby a main contributor to the mainstreaming of climate action into the European Structural and Investment funds. All Member States allocate more than 35 % of support from the fund for climate action.
- › Many of the Rural Development Programmes do explicitly mention climate considerations in the analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT) and at the needs and strategy level, while the description of the specific climate measures is less concrete on climate action. In light of this, it becomes difficult to, *ex ante*, assess the expected climate benefits resulting from the identified climate and measure allocation.

### Climate change adaptation and mitigation

- › In general, adaptation, both in agriculture and forest sectors, is well integrated into the Rural Development Programmes, even if it often is not explicitly mentioned in the description of measures. Adaptation action will be achieved as an integral part of ecosystem or water/land management operations under Union Priority 4 (agricultural & forest ecosystems). Union Priority 4 is the key Union Priority for adaptation. The overall allocation in favour of Union Priority 4 of EUR 43.3 billion equals 77 % of all climate-related support, and thus seems to reflect this approach.
- › As seen from the overview of actions, it appears to be often difficult for Managing Authorities to link adaptation action (i.e. the benefits of such action) to a well-suited Focus Area. Most adaptation action is linked to Union Priority 4 (agricultural & forest ecosystems), which does not in its formulation in the regulation mention adaptation, which leads to the previous conclusion that adaptation is well integrated into programmes, but that adaptation benefits are often implicitly, rather than explicitly, assumed. One observation could hence be that an adaptation-specific Focus Area would be appropriate. It could for example encompass the notion of *“building climate change resilience in agricultural systems and in the rural landscape.”*
- › Dedicated, primary climate change mitigation in agriculture is less prominently featured, as can also be seen from the allocation of support: EUR 5.5 billion or less than 10 % of total climate-relevant support in the European Agricultural Fund for Rural Development is targeted at Focus Areas that focus on mitigation. There are only a few examples of measures explicitly designed and programmed to deliver mitigation actions, and most of these include afforestation. However, a number of the Rural Development Programmes

have succeeded in programming mitigation actions and could be taken as best-practice examples of how to integrate mitigation actions in programming.

- › The availability of mitigation-targeted Focus Areas (5d and 5e on (greenhouse gas and ammonia emissions reductions; and carbon conservation and sequestration respectively)) is valuable and allows Managing Authorities to allocate mitigation actions in a transparent and consistent manner. Against this backdrop, the limited extent of mitigation actions is not the result of unclear options for allocation of support, but rather an indication that the key mitigation challenges are not always addressed in the programming, and thus there could be a lost opportunity in this respect.

## Measures

- › By the wording of the regulation on the European Agricultural Fund for Rural Development, Measure M10 “Agri-environment-climate measure” is a key climate action measure for agriculture. The measure appears to be used to address both climate change adaptation and mitigation through commitments on agricultural land and on farms. Dedicated and explicit adaptation or mitigation operations under M10 are few, however. This reflects that many biodiversity, water or soil targeted actions will deliver climate change mitigation and/or adaptation benefits, even if the action is not designed primarily with this in mind. In terms of wording, however, it should be noted that more than half of the Rural Development Programmes do not include explicit considerations on adaptation or mitigation in the description of M10.
- › In agriculture, Measure M04 supporting “Investments in physical assets”, is used in a way which makes it one of the prominent measures for climate action on agricultural holdings. This is also reflected in the allocation, totalling EUR 5.5 billion, or around 10 % of support for climate action. In particular, the measure will support efficiency improvements in both water, fertilizer and energy use.
- › In forest land, Measure M08 “Investments in forest area development and improvement of the viability of forests” appears to be the most important climate change mitigation measure. This is reflected in the allocation towards mitigation Focus Areas of EUR 1.9 billion, and not least in the high absolute allocation that many Rural Development Programmes have made for this.
- › Most Rural Development Programmes identify climate actions in the analysis of Strengths, Weaknesses, Opportunities and Threats (SWOT), needs and strategy level, indicating overall climate action awareness within Managing Authorities. However, the translation into concrete and targeted climate actions based on the programmed-in measures and allocated under the appropriate Focus Areas, is in most programmes not very explicit, despite the flexible framework for climate action as set out in the Regulation (1305/2013).
- › In general, in the vast majority of all Rural Development Programmes, the measure description is short on details, and sometimes there is unclear consistency between the allocation (to Focus Areas) and the contents

described (i.e. that the foreseen concrete actions do not seem capable of delivering the benefits that would allow it to be allocated to a certain Focus Area). In many cases, there is no explicit consideration of adaptation and mitigation, and in general, many Rural Development Programmes are programmed with an environmental focus. This is especially the case under Measure M10, which many programmes use to address more 'traditional' environmental issues, sometimes in ways that allow them to reap adaptation benefits at the same time. This leads to two challenges: the first being that not all climate change adaptation or mitigation action is reflected in the linking to Focus Areas, the other being that it becomes difficult – ex-ante – to assess whether or not individual measures are likely to deliver actual climate benefits. Following this, a last concern is also whether the relevant synergies and coherence between the climate actions and the relevant environmental actions are sufficiently integrated into the Rural Development Programmes, for instance in the case of adaptation and irrigation, when waterbodies are already stressed.

### Link between climate action, measures and focus areas

- › There are many Rural Development Programmes that includes actions with climate benefits often supporting both mitigation and adaptation. The list of observed actions is long, however, and mostly contains actions concerned with soil, water, biodiversity, or livestock. Several measures are used to host these actions, although Measures M04 and M10 are the key measures. As a result, many concrete actions are hosted by several measures with differences between Rural Development Programmes, which again results in an unclear picture of the concrete action. There is hence an unclear link between the foreseen, concrete action and the respective measures used to achieve this.
- › The majority of the support allocated for climate action is disbursed using three measures, M10 "Agri-environment-climate", M11 "Organic Farming" and M13 "Payments to areas facing natural or other specific constraints". It is mostly effectuated through Union Priority 4 (agricultural and forest ecosystems) focusing on adaptation related interventions, and to a lesser extent through Union Priority 5 (efficiency use of resources and low carbon economy) focusing on mitigation. However, while some mitigation benefits could be achieved through M11 programmed for Union Priority 5, and some adaptation benefits are found when programming M13 for Union Priority 4, the opposite is difficult to identify.
- › Concerning Focus Areas, it is seen that a range of concrete actions regarding soil, water or biodiversity (or indeed, greenhouse gas emission reductions, carbon sequestration and renewable energy) are straightforward to link to relevant Focus Areas. However, action on livestock, manure, fertilizers, breeding and genetic resources is less clear, and may risk falling between Focus Areas in terms of allocation. Against this finding, it could be worthwhile considering a future Focus Area on e.g. *"improving the environmental profile of animal husbandry."*

- › Although the regulatory framework for the European Agricultural Fund for Rural Development allows for cost effective adaptation and mitigation actions to be implemented based on the SWOT and needs assessment, climate action is implemented in a fragmented manner, often not targeting the most important emission sources or more important adaptation needs of each region.

The analysis of climate actions in the Rural Development Programmes also points to more future-oriented issues that are worth reflecting on:

**On guidance:** Some lost opportunities may need to be addressed. The Commission may, amongst other items, consider how to promote relevant measures with the biggest mitigation potential. A way forward could be for the Commission to issue targeted guidance with best-practice examples on how mitigation actions can be included in the programming of Rural Development Programmes, given that the absence of mitigation actions seems to rest on the lack of uptake and lack of design of appropriate measures by Managing Authorities rather than the Regulation lacking options for this. Additional guidance may also be needed for more targeted measures on adaptation, including on better integration and synergies of adaptation and environmental measures.

**On programming and implementation:** Programming of climate action in Rural Development Programmes could be better integrated across programmes. This seems to result from a combination of factors. These may include late or no involvement of stakeholders, and limited use of topic experts on climate change when designing specific measures to target the aspects set out in the assessment of Strengths, Weaknesses, Opportunities and Threats (SWOT), needs and strategy. A way forward could be to include experts from other ministries, research organizations, farmers, independent experts, and Non-Governmental Organisations, among others. Also, it needs to be ensured that the drafting and implementation of the Rural Development Programmes involves related key ministries to ensure appropriate on-boarding of relevant knowledge on climate change mitigation and adaptation.

**On climate markers:** Challenges in achieving climate benefits (whether adaptation, mitigation or both) when programming certain measures for certain Union Priorities calls for consideration of a matrix-based approach where the climate marker percentage depends on a combination of Union Priority & Focus Area and measure, and not solely on the Focus Area. This would mean that when programmed using certain measures, a Focus Area would carry a climate marker of 100 %, while the same Focus Area programmed using a different measure could carry a climate marker of 0 %.

**On EU scaling of measures:** Some of the measures observed could be implemented at EU scale. The Commission may thus consider if some of these measures need to be mandatory measures and shift them from voluntary to obligatory measures (from the second to the first pillar of the Common Agricultural Policy). Actions identified in the Rural Development Programmes which could carry climate benefits for adaptation and/or mitigation could be included in the measure design of programmes, even when the measures do not primarily aim at addressing a climate issue.



## 8 European Maritime and Fisheries Fund

### Mainstreaming in EMFF

Support under the European Maritime and Fisheries Fund (EMFF) shall contribute to one or more of the six Union Priorities (UPs) set out in the EMFF regulation <sup>(80)</sup>. The UPs translate the four Thematic Objectives (TOs) that are covered by the EMFF into UPs of relevance to the EMFF. Four of the UPs (UP3, UP4, UP5 and UP6) correspond to one TO, while UP1 and UP2 cover several TOs each <sup>(81)</sup>. This is shown in Table 8-1. Figure 2-1 lists the all the 11 Thematic Objectives that are covered by the European Structural and Investment Funds (ESIF).

Table 8-1 EMFF UPs and their corresponding TOs

UP	Name of UP	TO
1	Promoting environmentally sustainable, resource-efficient, innovative, competitive and knowledge-based fisheries.	3, 4, 6, 8
2	Fostering environmentally sustainable, resource-efficient, innovative, competitive and knowledge-based aquaculture	3, 4, 6, 8
3	Fostering the implementation of the CFP	6
4	Increasing employment and territorial cohesion by pursuing the following specific objective: the promotion of economic growth, social inclusion and job creation, and providing support to employability and labour mobility in coastal and inland communities which depend on fishing and aquaculture, including the diversification of activities within fisheries and into other sectors of maritime economy	8
5	Fostering marketing and processing	3
6	Fostering the implementation of the IMP	6

The intervention logic of the EMFF assigns measures under Articles in the EMFF regulation that are linked to Specific Objectives (SO), which are in turn sub-categories of UPs. The climate-relevant measures are presented in section 8.3 below.

### Number of OPs

Each Member State (with the exception of Luxemburg) prepares an Operational Programme (OP) setting out how it intends to use EMFF support. There are thus 27 EMFF OPs in total. Overview of financial allocations

### Allocation for climate action in the OPs

From a total EMFF support of EUR 5,749 million, 17.69 % (EUR 1,017 million) is allocated to climate action <sup>(82)</sup>. The EMFF is the smallest of the European Structural and Investment Funds (ESIF), and hence, it comes to contribute only 0.22% to the overall climate allocation under ESIF.

<sup>80</sup> Article 6 of the EMFF Regulation (508/2014) and listed in chapter 2.

<sup>81</sup> The intervention logic of the EMFF illustrates that UP3, UP4, UP5 and UP6 each address only one TO.

<sup>82</sup> The term 'total EMFF Support' covers total EMFF support, climate-oriented or not.

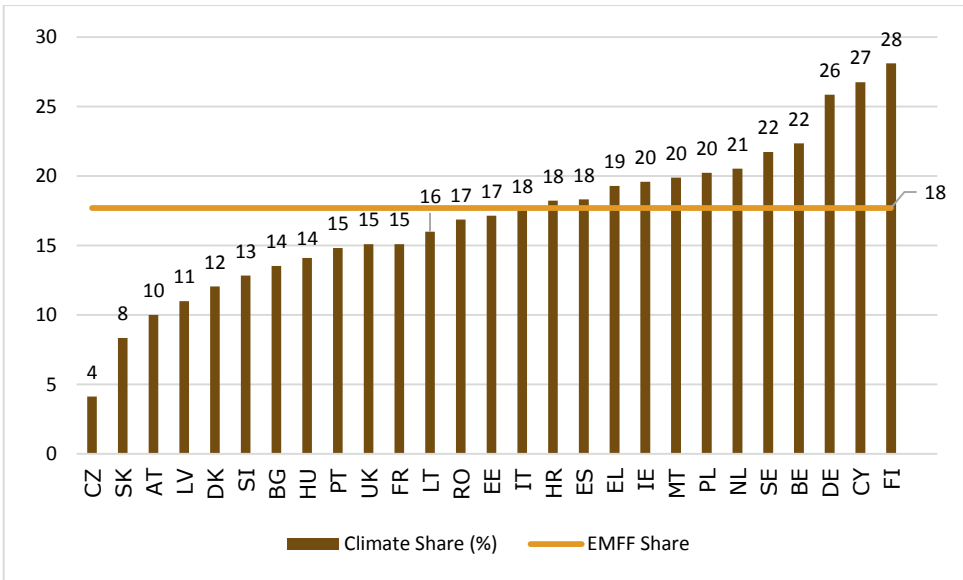
*Table 8-2 Allocation for climate action in the EMFF: MEUR and shares of funds-specific support and of total ESIF support respectively*

Support for climate action in EMFF, M EUR	Support for climate action in EMFF as percentage of total EMFF support	Support for climate action in EMFF, percentage of total ESIF support
1,017	17.69	0.22

Allocations for climate action in Member States

The OP with the largest support for climate action, Spain, allocates EUR 213 million for climate action. This is also the single largest OP, with a total EMFF support of EUR 1,017 million. The OP with the lowest climate share (Czech Republic) has EUR 31 million (or 4 %) of funding allocated for climate action.

*Figure 8-1 Climate action by Member State including average climate action across MS: share of total EMFF support marked for climate action*



## 8.1 Breakdown of financial allocations

EMFF has no financial breakdown at measure level

In the case of the EMFF, the OPs do not include a breakdown of the support per SO or per measure. It is therefore not possible to quantitatively detail the support for climate action in the OPs. Hence, this section seeks to identify indications of where the climate-relevant allocations are most likely to be found. It does so by first considering how total EMFF support is distributed among the six UPs, and then by considering how the total EMFF support is distributed amongst the TOs.

Support per UPs

Table 8-3 illustrates the level of support per Member State.

Table 8-3 EMFF support in total and per UP and Member States <sup>(83)</sup>

UP	1	2	3	4	5	6	Climate allocation (MEUR)	Total (EMFF)
EMFF (MEUR)	1,546	1,210	1,100	519	1,012	71	1,048	5,749
	(%)							
EMFF	26.9	21.0	19.1	9.0	17.6	1.2		
AT	0.6	51.7	20.1	-	24.3	-	0.7	7.0
BE	34.4	16.1	34.1	-	9.8	2.4	9.3	41.7
BG	21.5	30.8	11.9	17.2	11.0	2.8	11.9	88.1
CY	32.6	23.8	21.9	13.2	3.1	3.5	10.6	39.7
CZ	-	66.8	8.5	-	19.2	-	1.3	31.1
DE	18.8	29.3	27.2	9.5	10.5	1.1	56.8	219.6
DK	35.6	12.4	33.9	3.6	9.5	1.2	25.1	208.4
EE	19.1	13.3	11.5	23.4	24.4	2.5	17.3	101.0
EL	32.9	17.3	18.1	11.8	15.4	1.1	75.0	388.8
ES	30.3	17.7	13.4	9.3	23.6	0.5	212.7	1,161.6
FI	16.5	21.0	40.4	5.9	7.4	6.0	20.9	74.4
FR	25.7	15.1	20.8	3.8	27.8	0.9	88.8	588.0
HR	34.4	21.9	13.8	7.5	16.1	0.4	46.0	252.6
HU	6.5	65.9	6.3	-	20.4	-	5.5	39.1
IE	22.7	10.1	47.3	4.1	11.7	3.6	28.9	147.6
IT	32.2	20.6	19.1	7.9	13.4	0.8	94.0	537.3
LT	16.4	33.5	11.7	16.4	14.7	1.6	10.1	63.4
LV	21.8	24.8	8.0	9.1	29.2	1.8	15.4	139.8
MT	37.8	11.0	38.4	-	1.8	5.3	4.5	22.6
NL	35.7	4.8	48.7	-	3.4	2.5	20.8	101.5
PL	24.5	38.0	4.4	15.0	11.6	0.5	107.5	531.2
PT	26.4	15.0	14.1	8.9	28.3	1.4	58.2	392.5
RO	7.8	50.0	7.7	20.0	7.0	1.5	28.4	168.4
SE	18.3	9.9	50.3	6.9	6.0	3.7	26.1	120.2
SI	12.1	24.2	17.2	20.2	14.3	4.0	3.1	24.8
SK	-	59.6	8.9	-	25.6	-	1.3	15.8
UK	27.8	7.9	40.2	5.6	11.2	2.2	36.7	243.1

The table illustrates the distribution of total support according to UPs, doing so at the Member State level. About 48 % of EMFF support is allocated to measures under Article numbers covered under either UP1 (Fisheries) or UP2 (Aquaculture), whereas only 1 % is allocated for UP6 (Integrated Maritime Policy, IMP).

EMFF distribution of funding by TOs

While OPs do not provide information with regard to the specific support for each measure, the distribution of total EMFF support (climate-related or not) per UP and

<sup>83</sup> Sum of UPs do not add to 100%, as Technical Assistance is not included



TO is provided. Table 8-4 shows the total allocation to each TO and UP in EUR million and as a percentage.

The table provides a count of the number of OPs which contribute toward each of the four EMFF-relevant TOs (second column). There are 18 Member States with an allocation for TO4, and thus nine OPs that do not have any allocation to TO4. By comparison, all OPs have an allocation towards TO3, and all but one towards TO6<sup>(84)</sup>. The highest relative allocation to TO4 for an OP is 5 % (Estonia), while the highest level of EMFF support is EUR 21 million (Poland).

*Table 8-4 Support in EMFF OPs by TOs and by UPs, and frequency of measures selection in EMFF OPs<sup>(85)</sup>*

			UP	1	2	3	4	5	6
			MEUR	1,546	1,210	1,100	519	1,012	71
TO	OPs	MEUR	%	27	21	19	9	18	1
3	27	2,598	45	M30 (1)	M47 (7)			M66 (1)	
				M35 (5)	M49 (1)			M68 (1)	
				M43.1,3 (21)	M48.1.a-d, f-h (3)			M69 (8)	
				M28 (2)	M57 (10)				
				M26 (5)					
				M33 (9)					
4	18	115	2	M41.1 (14)	M48.1.k (15)				
				M41.2 (17)					
6	26	2,165	38	M38 (21)	M48.1.e,i,j (4)	M77 (4)			M80.1.a (3)
				M39 (14)	M51 (16)				M80.1.b (15)
				M40.1.b-g,i (20)	M53 (1)				M80.1.c (21)
				M34 (12)	M54 (4)				
				M36 (9)					
8	22	580	10	M29.1-2 (0)	M50 (1)		M63 (20)		
							M64 (0)		

The link between UPs, TOs and measures

Furthermore, Table 8-4 also provides an indication of the relative importance of the individual UPs. It does so by considering the support allocated for the individual UP and considering the number of OPs that include the UP in question. In addition, the table includes a count of the extent to which the climate-relevant measures have been included in the OPs. As mentioned previously, any measure under a given Article belongs exclusively to only one UP. The selected climate-relevant measures are thus listed for the respective UP that they belong to, as well as for the corresponding TOs. The table thus lists the selected measures and lists in parenthesis how many OPs have selected the measure in question.

<sup>84</sup> The overview of the contributions towards the TOs per Member State is not included.

<sup>85</sup> Numbers in parentheses show the number of OPs that selected the corresponding measure (i.e. Article number in regulation (508/2014)) in a climate-relevant context. Support by TO and UP does not include Technical Assistance, and hence does not add up to 100%.

Just under 2 % of the support is allocated for TO4, although more than half of the OPs include measures that relate to this TO. This 2 % is provided through three measures under UP1 and UP2.

Judged by financial allocations, TO3 is the single most important TO in EMFF. It receives 45 % of the total EMFF support. This comes through selected measures in UP1, UP2 and UP5. Most of these measures are not selected in more than 30 % of the OPs. Significant support is also allocated for TO6 (38 % of the total). This includes the selection of a number of climate-relevant measures in UP1 and UP2. The measures that contribute to TO6 are included in many OPs. Thus, several TO6 measures are included in more than 50 % of the programmes.

Climate-relevant  
UPs

Given the financial allocations and the selection of measures, the highest level of climate action is likely to fall under UP1 and UP2. Most of the support goes to actions under UP1 and UP2, and these are linked to TO3, TO4 and TO6 through climate-relevant measures. As for UP3, which counts for 19 % of the total EMFF support, only four OPs have chosen climate-relevant measures here. Also, support for UP5 is considerable (18 %), but the UP includes few climate-relevant measures and they are included quite rarely. Section 8.3 details the breakdown per measure and what this means for climate action in EMFF OPs.

## 8.2 Climate action in EMFF

This section details the climate actions per UP according to climate-relevant measures (or article). For each UP, the key focus is described and a table is provided, which shows the climate-relevant measures <sup>(86)</sup>. The corresponding TOs are indicated per measure, as well as the climate markers assigned to each measure or article.

Tables 8-5 to 8-10 thus further detail the information contained in Table 8-4 and show the extent to which a particular measure has been selected. In addition, the tables show the corresponding TO and climate marker (climate markers with a 0\* indicate that the Member States can assign a 40 % marker if they can demonstrate the relevance of a measure under a given Article to climate action objectives). The last column shows how many times a particular measure has been included in an OP. As mentioned before, this only counts the number of occurrences, as the OPs do not allow for any count of associated support. Information on support at a measure, or Article, level is not provided in the OPs. A measure can thus be included in many OPs (in the tables below), but this is not necessarily an indication of a correspondingly high level of support (overall and for climate action).

Horizontal principles

The horizontal principles guiding the EMFF OPs are included under section 9.2 in the OPs. Sustainable development mostly includes environmental considerations.

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<sup>86</sup> Commission Implementing Regulation 1232/2014, Annex III: Coefficient for calculating of support for climate change in the case of the EMFF pursuant to Article 3. Includes 16 articles of measures with a marker and 18 articles of measures which have a potential marker. For these, Member States have to assess whether the measure in their programme has climate change relevance.

In some OPs, reference is also made to the requirement that projects take climate change or climate change strategies into account. In some cases, specific reference is made that project selection should take into consideration, e.g. contributions to energy efficiency, but most OPs still have few details.

As in other ESIF-funded programmes, the OPs refer to selection criteria, including criteria related to climate action, which are developed at programme start and applied during the project selection process. The selection criteria are defined by the Managing Authority (MA) and approved by the Monitoring Committee.

Improvements of the OPs

Comparing the first versions of the OPs <sup>(87)</sup> to the final versions, one can observe an increased incorporation of climate-change references. Changes have been observed in relation to the description in the OPs of both evaluation procedures and criteria, as well as with regard to ensuring climate change expertise on the Monitoring Committee. Also, the final OPs are improved in terms of explicitly considering that measures related to climate change mitigation or adaptation have been included in the SO descriptions. From a mere quantitative perspective, the overall climate share in the EMFF increased slightly, from 17.2 % in the first OP versions to 17.7 % in the final versions.

### Climate action in fisheries (UP1)

Fisheries (UP1)

UP1 pursues the promotion of environmentally sustainable, resource-efficient, innovative, competitive and knowledge-based marine and inland fisheries. Better knowledge about climate action issues can, for example, support the introduction of technological innovations to a) mitigate climate change (e.g. through reduction in energy use) and b) adapt to new conditions (e.g. through commercial use of less-known species).

UP1 support

UP1 contributes to TO3, TO4, TO6 and TO8. None of the measures relevant to TO8 includes a climate marker. UP1 is the largest of the UPs in terms of total support (27 % of total support is allocated for UP1). It is also, by far, the UP with the most relevant climate action measures.

Mitigation

Actions promoted under Article 41 (promotion of energy efficiency in marine and inland fisheries) are undoubtedly the most important and most direct from a mitigation perspective. Fourteen Member States with marine fisheries include these actions in their OPs and have set a target indicator to measure support to investments in replacement and modernization of vessel engines with new, more efficient engine types. For example, in the Dutch OP, the *'use of energy efficient fishing gears (pulse trawl) to reduce energy use and emissions'* <sup>(88)</sup> is explicitly mentioned, and the French OP promotes *'the energy transition with new propulsion systems, vessels hulls and fishing gear [... and] improves the infrastructure with more energy-efficient port services'* <sup>(89)</sup>.

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<sup>87</sup> the versions of the OPs that were subject to the first Inter-Service Consultation (ISC)

<sup>88</sup> (OP EMFF, Netherlands - 2014NL14MFOP001)

<sup>89</sup> (OP EMFF, France - 2014FR14MFOP001)

Table 8-5 Overview of climate-relevant measures in UP1, and frequency of selection in OPs

Measure	TO	Coeff.	Measure # of OPs
Article 38 Limiting the impact of fishing on the marine environment and adapting fishing to the protection of species (+ art. 44.1.c Inland fishing)	6	40	21
Article 39 Innovation linked to the conservation of marine biological resources (+ art. 44.1.c Inland fishing)	6	40	14
Article 40.1.b-g, i Protection and restoration of marine biodiversity – contribution to a better management or conservation, construction, installation or modernisation of static or movable facilities, preparation of protection and management plans related to NATURA2000 sites and spatial protected areas, management, restoration and monitoring marine protected areas, including NATURA 2000 sites, environmental awareness, participation in other actions aimed at maintaining and enhancing biodiversity and ecosystem services (+ art. 44.1.d Inland fishing)	6	40	20
Article 34 Permanent cessation of fishing activities	6	100	12
Article 36 Support to systems of allocation of fishing opportunities	6	40	9
Article 30 Diversification and new forms of income (+ art. 44.4 Inland fishing)	3	0*	1
Article 33 Temporary cessation of fishing activities	3	100	9
Article 35 Mutual funds for adverse climatic events and environmental incidents	3	40	5
Article 43.1 Fishing ports, landing sites, auction halls and shelters - investments improving fishing port and auctions halls infrastructure or landing sites and shelters (+ art. 44.1.d Inland fishing)	3	40	21
Article 43.3 Fishing ports, landing sites, auction halls and shelters – investments to improve the safety of fishermen (+ art. 44.1.d Inland fishing)	3	40	
Article 26 Innovation (+ art. 44.3 Inland fishing)	3	0*	5
Article 28 Partnerships between fishermen and scientists (+ art. 44.3 Inland fishing)	3	0*	2
Article 41.1.a Energy efficiency and mitigation of climate change – on board investments (+ art. 44.1.d Inland fishing)	4	100	14
Article 41.1.b Energy efficiency and mitigation of climate change – energy efficiency audits and schemes (+ art. 44.1.d Inland fishing)	4	100	
Article 41.1.c Energy efficiency - studies to assess the contribution of alternative propulsion systems and hull designs (+ art. 44.1.d Inland fishing)	4	100	
Article 41.2 Energy efficiency and mitigation of climate change - Replacement or modernisation of main or ancillary engines (+ art. 44.1.d Inland fishing)	4	100	17
Article 29.1 Promoting human capital and social dialogue – training, networking, social dialogue (+ art. 44.1.a Inland fishing)	8	0*	0
Article 29.2 Promoting human capital and social dialogue – trainees on board SSCF vessels / social dialogue (+art. 44.1.a Inland fishing)	8	0*	

Adaptation	<p>A variety of adaptation measures are foreseen in the OPs. Climate change adaptation is especially reflected in themes such as the use of less-known species and the adaptation of fishing gear to altering conditions (Article 38-40). Table 8-5 above shows that three measures are selected by most programmes. Safety at sea to meet the rising frequency of extreme climatic conditions (Article 32) is specifically addressed in the United Kingdom’s OP by addressing <i>‘increased occurrence of extreme weather [...] through improved safety and mutual funds. Climate change may impact the distribution of species, forcing the industry to adapt’</i> <sup>(90)</sup>.</p> <p>Five Member States plan for spending under Article 35, the creation of <i>‘Mutual funds for adverse climatic events and environmental incidents’</i>. Research and innovation is also foreseen to respond to adaptation challenges. For example, in the French OP, support is allocated to improve knowledge on the movement of stocks due to climate change and to improve selectivity. <sup>(91)</sup></p>
Aquaculture (UP2)	<p style="text-align: center;"><b>Climate action in aquaculture (UP2)</b></p> <p>UP2 pursues the promotion of environmentally sustainable, resource-efficient, innovative, competitive and knowledge-based marine and inland aquaculture. Applied knowledge and experience to address impacts invoked by climate change and develop adaptation strategies can be included in the OPs. In addition, regional water management can be improved through improved inland aquaculture in ponds.</p>
UP2 in terms of support	<p>UP2 has the second largest support of all UPs (21 %) and contributes to TO3, TO4, TO6 and TO8. Two of the 11 measures relevant to climate-change are selected in more than half the OPs.</p>
Mitigation in aquaculture	<p>Measures under Article 48 (productive investments in aquaculture), such as in recirculation systems, can improve energy efficiency, reduce use of water and improve waste treatment. In the Czech Republic’s OP, support is given to traditional pond culture [...] within the broader regional water management. The ponds can retain water during floods and supply water in periods of drought <sup>(92)</sup>. Some programmes stimulate the transition from non-renewable energy to renewable sources (wind, sun and geo-thermic). For example, the Hungarian OP indicates that <i>‘rich geothermal resources [allow] to reduce the energy demand of the production of warm water and saline-water species’</i> <sup>(93)</sup>.</p>

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<sup>90</sup> (OP EMFF, United Kingdom - 2014UK14MFOP001); this particular measure was not deemed relevant in the OP.

<sup>91</sup> (OP EMFF, France - 2014FR14MFOP001)

<sup>92</sup> (OP EMFF, Czech Republic - 2014CZ14MFOP001)

<sup>93</sup> (OP EMFF, Hungary - 2014HU14MFOP001)

Adaptation in aquaculture

Adaptation to climate change can be promoted by aquaculture stock insurance schemes to protect farmers from the consequences of floods, droughts or other environmental disasters (such as diseases and red tides (Article 57)). This has, for example, been addressed in the Spanish OP by providing ‘insurance contracts for aquaculture stocks to changes in the quantity and quality of water, natural disasters or diseases’ <sup>(94)</sup>.

Table 8-6 Overview of climate-relevant measures in UP2, and frequency of selection of measures in OPs

Measure	TO	Coeff	# of OPs
Article 47 Innovation	3	0*	7
Article 49 Management, relief and advisory services for aquaculture farms	3	0*	1
Article 48.1.a-d, f-h Productive investments in aquaculture	3	0*	3
Article 48.1.k Productive investments in aquaculture - increasing energy efficiency, renewable energy	4	40	15
Article 48.1.e, i, j Productive investments in aquaculture – resource efficiency, reducing usage of water and chemicals, recirculation systems minimising water use	6	0*	4
Article 51 Increasing the potential of aquaculture sites	6	40	16
Article 53 Conversion to eco-management and audit schemes and organic aquaculture	6	0*	1
Article 54 Aquaculture providing environmental services	6	0*	4
Article 57 Aquaculture stock insurance	6	40	10
Article 50 Promoting human capital and networking	8	0*	1

Climate action in CFP (UP3)

Common Fisheries Policy (UP3)

UP3 fosters the implementation of the Common Fisheries Policy (CFP). It provides funding for control and enforcement of the CFP rules and the collection of data required for the preparation, formulation and implementation of detailed CFP measures. The EMFF common monitoring and evaluation system calls for several environmental indicators. One such indicator is ‘fuel efficiency of fish capture’, which is directly related to the mitigation of climate change.

Third largest UP in terms of support

UP3 is the third largest of the UPs in terms of total support (19 %) and contributes to TO6. There is only one climate-relevant measure in this UP. The table below indicates that, in four OPs, the Member State in question has assessed that there is a contribution to climate action from this measure. More Member States may have selected the measure, but without assigning a climate marker.

Adaptation

Actions taken under Article 77 support adaptation by financing data collection. Examples show that OPs include this measure so that data collection under the Data Collection Framework (DCF) helps to improve knowledge of exploited stocks

<sup>94</sup> (OP EMFF, Spain - 2014ES14MFOP001)

and fishing activities to ‘(1) better manage fisheries resources and (2) improve the assessment of the impact of fisheries on the marine environment’<sup>(95)</sup>, as mentioned in the French OP, amongst others.

*Table 8-7 Overview of climate-relevant measures in UP3 and frequency of selection of measures in OPs*

Measure	TO	Coeff	# of OPs
Article 77 Data collection	6	0*	4

### Climate action in employment and territorial cohesion (UP 4)

Increasing employment and territorial cohesion (UP4)

UP4 aims to increase employment and territorial cohesion. This UP is oriented towards economic, social and cultural strengthening of fisheries-dependent regions. Adaptation to, and mitigation of, climate change may be by-products of local strategies and projects implemented within this UP.

The second-smallest UP in terms of support

UP4 is the second smallest of the UPs in terms of EMFF support (9 %) and contributes to TO8. There are only two measures relevant to climate action in this UP. One of these, Article 63, has been assigned a positive climate marker, which has been selected by three out of four OPs. The opportunity to assign a positive climate marker to Article 64 has not been used by any Member State.

*Table 8-8 Overview of climate-relevant measures in UP4 and frequency of selection of measures in OPs*

Measure	TO	Coeff	# of OPs
Article 63 Implementation of local development strategies	8	40	20
Article 64 Cooperation activities	8	0*	0

Mitigation and adaptation in UP4

Article 63c calls for enhancing and capitalising on the environmental assets of fisheries and aquaculture areas, including operations to mitigate climate change. Community Led Local Development (CLLD) is a bottom-up process, and therefore the OPs do not formulate any specific guidance or requirements to ensure that climate issues are included in local development strategies. Fisheries Local Action Groups (FLAGs) can decide climate-relevant criteria to apply when approving specific projects or activities. As an example, the OP for Italy gives particular attention to environmental topics, the opportunities coming from blue economy, preservation of fishing villages, wetland areas and high natural value areas<sup>(96)</sup>.

<sup>95</sup> (OP EMFF, France – 2014FR14MFOP001)

<sup>96</sup> (OP EMFF, Italy - 2014IT14MFOP001)

## Climate action in Marketing and Processing (UP5)

### Marketing and Processing (UP5)

UP5 fosters marketing and processing of fishery and aquaculture products. These activities experience the consequences of climate change through their links to primary production in fishing and aquaculture.

UP5 receives 18 % of EMFF support and contributes only to TO3. There are only three measures potentially relevant to climate action in this UP. Measures under Article 69 have been assigned a positive climate marker in 8 of the OPs, whereas the same only applies to one OP in the cases of Articles 66 and 68.

Table 8-9 Overview of climate-relevant measures in UP5 and frequency of selection of measures in OPs

Measure	TO	Coeff	# of OPs
Article 66 Production and marketing plans	3	0*	1
Article 68 Marketing measures	3	0*	1
Article 69 Processing of fisheries and aquaculture products	3	0*	8

### Mitigation in UP5

Article 69 supports processing of fishery and aquaculture products that contribute to energy savings or environmental impact reductions. In France, for example, the OP gives priority to processing companies and projects related to energy efficiency and the environment, and projects improving safety and working conditions will be a priority <sup>(97)</sup>. Also, Article 68.b can contribute to increased resource efficiency by supporting the marketing of less-known species, unwanted catches and products obtained using methods with low impact on the environment, or from organic aquaculture. In the Spanish OP, support is given to the promotion of energy efficiency, use of new resources and innovation on lower emissions, and better use of existing and new species (reduction of waste) <sup>(98)</sup>.

## Climate action in the IMP (UP6)

### Implementation of Integrated Maritime Policy (UP6)

UP6 supports the implementation of the IMP. In regard to climate action relevance, UP6 intends to reduce uncertainties through improved knowledge. The implementation of the IMP is by far the smallest activity within EMFF OPs, with a budget allocation of about EUR 71 million, corresponding to 1 % of the total EMFF budget (EU contribution). There are two measures relevant to climate action in this UP, and one potentially climate-relevant measure. Article 80.1.a has been assigned a positive climate marker in 3 of the EMFF OPs. Article 80.1.b and c have been selected in 15 and 21 OPs, respectively.

### Mitigation and adaptation

The two measures relevant to climate action (Art 80.1.b and 80.1.c) selected by most programmes focus on collection of data with regard to the marine environment. In France, for example, the OP supports projects under UP6 that will contribute to both marine surveillance and protection of the marine environment. In

<sup>97</sup> (OP EMFF, France - 2014FR14MFOP001)

<sup>98</sup> (OP EMFF, Spain - 2014ES14MFOP001)



line with the needs identified for marine protection, in a logic of ecosystem-based management, the EMFF will contribute to the network of scientific and technical expertise, equipment and knowledge to acquire data and methodological tools for assessing the state of the marine environment <sup>(99)</sup>.

*Table 8-10 Overview of climate-relevant measures in UP6 and frequency of selection of measures in OPs*

Measure	TO	Coeff	# of OPs
Article 80.1.a Integrating Maritime Surveillance	6	0*	3
Article 80.1.b Promotion of the protection of marine environment, and the sustainable use of marine and coastal resources	6	40	15
Article 80.1.c Improving the knowledge on the state of the marine environment	6	40	21

### 8.3 Key conclusions

The following conclusions and lessons learned have been identified for European Maritime and Fisheries Fund and its programmes:

The European Maritime and Fisheries fund is by far the smallest of the European Structural and Investment Funds: 0.22 % of total support from the European Structural and Investment Funds is allocated to climate action under the EMFF. Overall, the Operational Programmes focus on support to the implementation of the Common Fisheries Policy. Most of the measures supported are thus focused on the promotion of economic, social and environmental sustainability in fisheries.

As the Operational Programmes do not detail allocations for climate action, it is only possible to identify the overall allocation to climate action at the programme level. Furthermore, the Operational Programmes' descriptions are not very detailed on the exact contents of the individual Specific Objectives. Measures are selected that reflect the contents of the Specific Objectives, but the formulation is standard.

The specific selection criteria set by the Member States related to climate action applied during the project selection process will be important for the realised climate action during the implementation of Operational Programmes. It is important that programmes support the applicants having the required knowledge of climate change to appropriately respond to such criteria.

Mitigation is addressed through specific Articles about the promotion of energy efficiency in fishing (Union Priority 1), aquaculture (Union Priority 2) and fish processing (Union Priority 5). This is reflected in all Operational Programmes, and

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<sup>99</sup> (OP EMFF, France - 2014FR14MFOP001)

therefore contribute directly to mitigation of climate change. Promotion of energy and resource efficiency is one of the focus points of the programmes.

On adaptation, the Operational Programmes are found to support the provision of environmental services in aquaculture, a reduction of environmental impact (waste and water) and local water management in Union Priority 2. Also, Union Priority 1 has adaptation-related measures focusing on protection of the marine environment and marine resources. Union Priority P3 and Union Priority 6 are supporting adaptation through collection of data and development of knowledge about the state of the marine environment.

When comparing the climate action contents of the first and the final versions of the Operational Programmes, the support for climate action in absolute terms has increased by 9.2 %. However, the climate share did not increase significantly (i.e. <1 %). A further common observation is that the composition of the Monitoring Committee was further modified to include members with climate change insight.

The analysis of the European Maritime and Fisheries Fund and the Operational Programmes leads to four key observations of possible future relevance:

**On EU stimulus to enhance readiness of Member States and Managing Authorities:** Guidelines and templates for Operational Programmes should be explicit and consider how climate actions should be included and documented in the programmes. Most of the existing guidelines focus on the type of actions that can be included and considerations that should be made in advance. However, the operational document format (template) neither includes a specific section for climate action or considerations nor does it leave space for these to be included in, for example, the strategy section. Doing so could stimulate the readiness of Managing Authorities in on-boarding climate-related aspects more explicitly in future programming. Similarly, more precise/specific ex-ante assessment guidance and Strategic Environmental Assessment guidelines to ensure that climate action is incorporated in the programmes could be considered.

**On climate change adaptation:** Thematic Objective 5 is not covered in the European Maritime and Fisheries Fund, which could indicate a lower focus on adaptation. However, many of the measures do have adaptation aspects and could have been categorised also as being supportive of Thematic Objective 5. Translation of this adaptation relevance into the future programming context, thereby further stimulating the awareness of Managing Authorities and enabling a better tracing of the contribution of the European Maritime and Fisheries Fund to climate change adaptation, could be considered. This could be in terms of further strengthening the guidance material in this regard, or in terms of actually explicitly integrating Thematic Objective 5 in regulation.

**On implementation, monitoring and indicators:** Few of the output indicators of the European Maritime and Fisheries Fund are relevant for measuring the outputs of climate change actions, providing no possibility for monitoring progress. Only

one indicator is directly related to climate change mitigation <sup>(100)</sup>, while several indicators are only indirectly related climate change adaptation <sup>(101)</sup>. The selection criteria therefore become the key instrument to ensure that climate-relevant projects are selected. As the Operational Programmes do not include selection criteria, and the horizontal principles only in some cases indicate how climate action may be included in the selection criteria, programme implementation guidance, possibly of a pro-active nature, becomes very important (as does monitoring implementation).

**On climate markers:** Allocations for climate action are not traceable in the programmes. As mentioned above, the Operational Programmes only provide an overall figure of the support for climate action. In future programming, a further breakdown of support (e.g. at the level of Union Priority, Specific Objective or measure) can assist in explicitly explaining the alignment of financial allocations for climate action and climate-relevant contents of the programme. Further, the common methodology for calculating allocations for climate action applies a marker of 0\*. This means that for those Articles, Member States can assign a marker of 40 % if the contents are climate-relevant. This can leave too much room for interpretation, which implies a risk of inconsistency when comparing across programmes.

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<sup>100</sup> Indicator 1.07 (Energy efficiency and mitigation of climate change), Regulation (1014/2014).

<sup>101</sup> For example, Indicators 1.04 (Conservation measures, reduction of the fishing impact on the environment and fishing adaptation to the protection of species) or 2.06 (Aquaculture stock insurance), Regulation (1014/2014).

## 9 Annexes

### 9.1 List of essential literature and legislation

CF Regulation (EU) 1300/2013 of 17 December 2013

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1300&from=EN>

Commission Implementing Regulation (EU) 215/2014 (amended through Commission Implementing Regulation (EU) No 1232/2014) Commission Implementing Regulation on methodologies for climate change support, the performance framework and the nomenclature of categories of intervention for the ERDF, the ESF and the Cohesion Fund under the Investment for Growth and Jobs Goal

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0215&from=EN>

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=OJ:L:2014:332:TOC>

Commission Implementing Regulation (EU) No 1011/2014

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R1011&from=EN>

Common Provision Regulation (EU) No 1302/2013 of 17 December 2013

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1303&:PDF>

Commission Staff Working Document: 'Elements for a Common Strategic Framework 2014 to 2020', Brussels 14.3.2012 SWD (2012) 61 Final, henceforth 'the CSF'.

[http://ec.europa.eu/regional\\_policy/sources/docoffic/working/strategic\\_framework/csf\\_part1\\_en.pdf](http://ec.europa.eu/regional_policy/sources/docoffic/working/strategic_framework/csf_part1_en.pdf)

EAFRD Regulation (EU) 1305/2013 of 17 December 2013

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1305&:PDF>

EMFF Regulation (EU) 508/2014 of 15 May 2014

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0508&rid=1>

EMFF Regulation (EU) 1014/2014 of 22 July 2014

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R1014&rid=8>

EMFF Regulation (EU) 1232/2014 of 18 November 2014

<http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32014R1232>

ERDF Regulation (EU) No 1301/2013 of 17 December 2013

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1301&:PDF>

ESF Regulation (EU) 1304/2013 of 17 December 2013

<http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1304&:PDF>

ETC Regulation (EU) 1299/2013 of 17 December 2013

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:347:0259:0280:En:PDF>

European Commission, 2010. Europe 2020: A strategy for smart, sustainable and inclusive growth. COM(2010) 2020 final.

<http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:2020:FIN:EN:PDF>

European Parliament resolution of 23 October 2012 in the interests of achieving a positive outcome of the multiannual Financial Framework 2014-2020 approval procedure (COM(2011)0398 – COM(2012)0388 – 2011/0177(APP))

<http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P7-TA-2012-0360&language=EN>

Factsheets - Mainstreaming of climate action in the European Structural and Investment Funds 2014-2020

[http://ec.europa.eu/clima/publications/index\\_en.htm#Mainstreaming](http://ec.europa.eu/clima/publications/index_en.htm#Mainstreaming)

Multiannual financial framework 2014-2020 and EU budget 2014

[http://bookshop.europa.eu/en/multiannual-financial-framework-2014-2020-and-eu-budget-2014-pbKV0413055/downloads/KV-04-13-055-EN-C/KV0413055ENC\\_002.pdf;pgid=lq1Ekni0.1ISR00OK4MycO9B00009-PmngQW;sid=X-SVnhscCBsvokws-xQLOXk5WDeTTVZ\\_QZY=?FileName=KV0413055ENC\\_002.pdf&SKU=KV0413055ENC\\_PDF&CatalogueNumber=KV-04-13-055-EN-C](http://bookshop.europa.eu/en/multiannual-financial-framework-2014-2020-and-eu-budget-2014-pbKV0413055/downloads/KV-04-13-055-EN-C/KV0413055ENC_002.pdf;pgid=lq1Ekni0.1ISR00OK4MycO9B00009-PmngQW;sid=X-SVnhscCBsvokws-xQLOXk5WDeTTVZ_QZY=?FileName=KV0413055ENC_002.pdf&SKU=KV0413055ENC_PDF&CatalogueNumber=KV-04-13-055-EN-C)

Note from the Council of the European Union on contribution of ESIF to the shift to a low-carbon economy.

<http://data.consilium.europa.eu/doc/document/ST-13701-2015-INIT/en/pdf>



## 9.2 List of produced report

Phase	Key Tasks	Outputs **)
Preparation phase	Document handling	CIRCABC manual (regularly updated)
	Analysis of the role of climate action in the 2014-2020 programming period and identification of good examples of mainstreaming	CSF review report Funds specific fact sheets on the potentials for climate action
	Determination of key criteria against which to assess mainstreaming achievements and scope for improvement of individual Partnership Agreements and programmes	Scrutiny criteria report Funds specific fact sheets explaining the scrutiny criteria Workshops in responsible DG's Workshop with the participation of all 28 country team leaders, project management and Commission staff <i>Workshops in 8 EU countries (full country team)</i>
	Review of EU climate tracking methodology to explain its use in the individual Funds	Report on climate tracking
	Analysis of the individual EU MS and at the overall level which considers climate relevant challenges and opportunities	State-of-Play report
Scrutiny phase	Preparation of scrutiny	<i>Funds specific templates and instructions for assessing individual programmes: specific for ISC1, ISC2</i>
	Detailed assessment of the first version of the Programme (ISC1)	576 scrutiny reports delivered within 11 days (and in certain periods: with a shorter deadline)
	Assessment of the revised version of the Programme (ISC1bis and ISC2)	598 scrutiny reports delivered within 11 days (and in certain periods: with a shorter deadline)
Conclusions phase	Summary of the individual programmes	<i>Template and instructions for the summary</i> 558 summary reports
	Database on key contents and financial data of the OP's including links to other project outcomes and with functionalities	ACCESS database providing a structured overview of the contents of the summaries and of the climate relevant financial data of programmes and partnership agreements
	Conclusions report	A report summarising the main achievements with regards to mainstreaming of climate action (this report) Funds specific Fact sheets on the main achievements supplemented by examples
Horizontal tasks	Four High Level Meetings per year	Meeting reports including project presentations
	Weekly tele-conference	Meeting reports
	Ad-hoc meetings and conference, e.g. in relation to template preparation and database design	

\*) the Term programmes includes also Partnership Agreements, \*\*) outputs written in *italics* are not contractual outputs